brown, shallowly reticulate, c. 1.5 mm long; hilum ventral; chaff smaller, paler. Figure 2.

This taxon is nearest the *E. loxophleba* group of taxa (including *E. gratiae*, discussed below). It is distinguished from that group by the lanceolate to broad-lanceolate, green juvenile leaves, the absence of pruinosity, the acute, not strongly irregular venation, and the mostly simple, axillary inflorescences.

DISTRIBUTION: Known from two or three small populations in the Howatharra Gap area and north-east along the Moresby Range, from Geraldton to north of Northampton (Irwin District). Figure 1.

ECOLOGY: *E. blaxellii* occurs around breakaways in low sandstone hills, growing in mallee heath with a wide variety of scleromorphic shrub species.

CONSERVATION STATUS: 2E (*Eucalyptus* sp. 22, Briggs & Leigh 1988, p. 119).

The specific epithet honours our colleague Donald F. Blaxell, Assistant Director (Living Collections) at the Royal Botanic Gardens, Sydney, who first noted the distinctive nature of this species in the course of his extensive field studies of the eucalypts.

SELECTED SPECIMENS (from 16 examined): WESTERN AUSTRALIA (N to S): Rob Road, 0.4 km W of Pt Gregory road, *Brooker 9277*, 8 May 1986 (CANB, NSW, PERTH); Nanson Road, *Brooker 9193*, 12 Mar 1985 (CANB, NSW, PERTH); 9 miles [14 km] NE of Geraldton on Yuna road, *Chippendale 320*, 16 Mar 1968 (CANB, NSW).

3. **Eucalyptus loxophleba** *Benth.*, Fl. Austral. 3: 252 (1867).

TYPE CITATION: 'W. Australia. Swan River and Darling range, Collie; Drummond, 2nd Coll. n. 82; York district, Preiss, n.246 (and 248?); Murchison river and Champion Bay, 'York Gum', Oldfield.'

TYPE: WESTERN AUSTRALIA: Swan River Colony, *J. Drummond, 2nd collection, no. 82*, 1843 (lecto K; isolecto BM, CGE, E, G, NSW, W). A fragment in NSW, which was a part of the K specimen, is annotated in Maiden's handwriting 'Drummond's 82 is the type.' This collection is here designated the lectotype.

≡ *E. foecunda* Schauer var. *loxophleba* (Benth.) Luehm. ex Maiden, Crit. Revis. Eucalyptus 1: 112, pl. 23, figs. 1–3; pl. 24 (1904).

Regarded as a variety of *E. foecunda* by Luehmann (1898) and Maiden (Crit. Revis. Eucalyptus 1: 112 (1904)), but again recognised as a species by Blakely (1934).

Tree to 15 m or mallee to 8 m. *Bark* persistent to smaller branches or partly smooth, rough bark grey, shortly fibrous-flaky, smooth bark brownish, yellow-brown or greenish, smaller twigs glaucous. *Juvenile leaves* petiolate, ovate to orbicular, acute to rounded, dull, bluish, 8–13 cm long, 5–9 cm wide. *Adult leaves* glossy, lanceolate to broad-lanceolate, falcate, acute, 6–14 cm long, 10–25 mm wide; petioles 10–18 mm long; lateral veins at 10–30° to midrib and highly irregular. *Umbellasters* axillary, 7-flowered or often more, often clustered at leafless ends of small branches; peduncles 2-angled, 3–24 mm long; pedicels grooved, 2–5 mm long. *Mature buds* obovoid, 6–10 mm long, 3–4 mm diam.; calyptra shorter than hypanthium, hemispherical, rarely apiculate; filaments regularly inflexed, constricted (geniculate) at point of flexure; style constricted at base. *Fruits* conical, sometimes vaguely angular, 3–4-locular, 4–9 mm long, 4–6 mm diam.; disc narrow, flat; valves deeply sunken. *Seeds* dull, dark brown, cuboid, to 1 mm long; chaff similar, thinner, or linear, to 4 mm long.

Distinguished within the series by the combination: juvenile leaves ovate to orbicular, dull, bluish; adult leaves lanceolate to broad-lanceolate, glossy, venation acute, highly irregular; inflorescences aggregated onto short, leafless shoots.

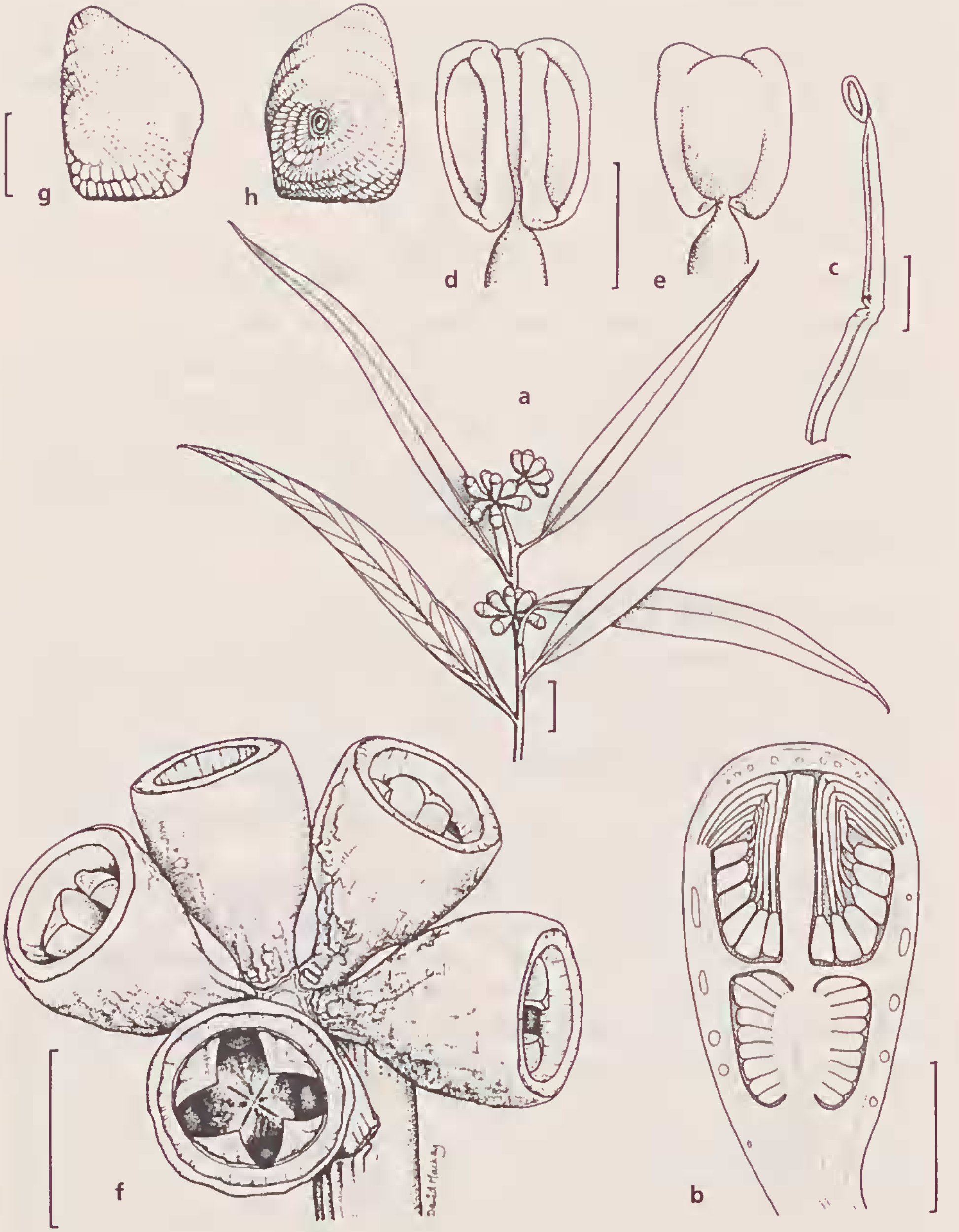

Figure 2. *E. blaxellii.* **a**, adult leaves and buds; **b**, section of bud; **c**, filament showing flexure; **d**, **e**, anther; **f**, fruits; **g**, **h**, seed (all from *Blaxell 1978*). Scale bar: a = 1 cm; f = 5 mm; b = 2 mm; c = 1 mm; d, e, g, h = 0.5 mm.

Three geographic subspecies may be recognised within this taxon.

1 Tree; bark persistent at least on lower trunk
  2 Bark persistent to small branches .... **3a.** subsp. **loxophleba**
  2* Bark smooth on larger branches and often upper trunk **3b.** subsp. **supralaevis**
1* Mallee; bark wholly smooth .... **3c.** subsp. **lissophloia**

3a. Eucalyptus loxophleba *Benth.* subsp. **loxophleba**

[*E. amygdalina* Schauer in Lehm., Pl. Preiss. 1: 130 (1844); non Labill., Nov. Holl. Pl. 2: 14 (1806). Based on *Preiss 246 & 248* from York, which were included in *E. loxophleba* by Bentham (1867: 254).]

Tree to 15 m. *Bark* persistent to smaller branches, grey, fibrous-flaky; smaller twigs not or very slightly glaucous. *Juvenile leaves* petiolate, ovate to orbicular, acute to rounded, dull, bluish, to 12 cm long, 5 cm wide. *Adult leaves* glossy, lanceolate, falcate, acute, 6–10 cm long, 10–25 mm wide. *Peduncles* 2-angled, 7–12 mm long; pedicels grooved, 2–5 mm long. *Mature buds* obovoid, c. 6 mm long, c. 4 mm diam. *Fruits* conical, 4-locular, 6–8 mm long, 4–6 mm diam.

Distinguished by the combination: tree habit; bark persistent to smaller branches; twigs not or scarcely glaucous. Fruits are relatively small within the species.

DISTRIBUTION: A species of the Wheat Belt, from around Moora to Bruce Rock, south-east to around Chillinup on the Pallinup River (Avon, Dale, Roe and Eyre Districts). Figure 3.

ECOLOGY: A common tree of the higher rainfall and higher-nutrient soils of the wetter western parts of the Wheat Belt.

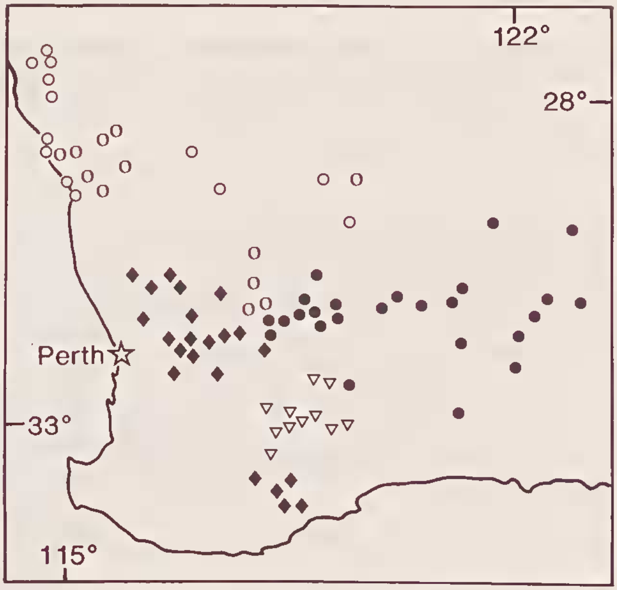

Figure 3. Distribution of *E. loxophleba* subsp. *loxophleba* (◆), subsp. *supralaevis* (○), subsp. *lissophloia* (●) and *E. gratiae* (▽).

Intergrades occur with subsp. *supralaevis* where the ranges join, and hybrids are recorded with *E. erythronema* Turcz. (sens. lat.), *E. spathulata*, *E. vegrandis* and *E. wandoo* Blakely.

CONSERVATION STATUS: Not considered to be at risk.

SELECTED SPECIMENS (from 47 examined): WESTERN AUSTRALIA: 7 miles [11 km] NW of Wongan Hills, *Tindale 2795*, 24 Aug 1973 (NSW, CANB, PERTH); 0.9 km W of Highway 95 on Gin Gin road, *Hill 2963*, 30 Aug 1988 (NSW); Bindoon, *Johnson W 7*, 9 Dec 1960 (NSW); near Northam, *Morrison*, Aug 1959 (NSW); near York, *Diels 2914*, 24 May 1901 (B, NSW); 67 km ESE of Perth on Brookton road, *Blaxell W75/4*, 2 Oct 1975 (NSW); Cowcowing, *Koch 1094*, Sep 1904 (NSW); Cunderdin, *Beadle 105*, 25 Oct 1972 (NSW); Meares Lake, c. 10 miles [16 km] E of County Peak, Beverley, *St Barbe Moore per Sargent 706*, Oct 1910 (NSW); 4 km NW of Ongerup, on Newbey's property, *Hill 336, Johnson & Blaxell*, 23 Oct 1983 (NSW); 1 km N of Chillinup, *B. Briggs 7879 & Johnson*, 11 Oct 1984 (NSW).

Intergrades between subsp. *loxophleba* and subsp. *supralaevis*: WESTERN AUSTRALIA: 10–15 km SW of Three Springs on Eneabba road, *Foreman 539*, 4 Sep 1984 (MEL, AD, CANB, NSW, PERTH); 28.6 miles [45.8 km] W of Watheroo, *Chippendale 26*, 18 Oct 1966 (CANB, NSW).

***E. erythronema* (sens. lat.) x *E. loxophleba* subsp. *loxophleba*:** North Bungulla Nature Reserve, *Brooker 9729*, 23 July 1987 (CANB, NSW, PERTH).

***E. loxophleba* subsp. *loxophleba* x *E. spathulata*:** 0.5 km W of Eldridge St on main road, Ongerup, *Brooker 9638*, 18 May 1987 (CANB, NSW, PERTH).

***E. loxophleba* subsp. *loxophleba* x *E. vegrandis*:** 4 km NW of Ongerup, *Hill 334, Johnson & Blaxell*, 23 Oct 1983 (NSW).

***E. loxophleba* subsp. *loxophleba* x *E. wandoo* subsp. *pulverea*:** S of Eneabba Nat. Res., *Hopper & Brooker 10084*, 20 Sep 1988 (CANB, NSW, PERTH); c. 7 miles [11 km] N of Watheroo, *Johnson W 22*, 9 Dec 1960 (NSW).

***E. loxophleba* subsp. *loxophleba* x *E. wandoo* subsp. *wandoo*:** 5.6 km from Irishtown Hall on Dumbarton road, *Brooker 9585*, 23 Apr 1987 (CANB, NSW, PERTH); Clackline, *Brooker 9586*, 23 Apr 1987 (CANB, NSW, PERTH).

3b. Eucalyptus loxophleba *Benth.* subsp. supralaevis *L. Johnson & K. Hill*, sp. nov.

Inter subspecies *E. loxophlebae* combinatione sequenti characteribus distinguitur: habitus arborescens; cortex ramorum laevis; ramuli plusminusve pruinosi; pedicelli graciles, mediocres vel longi; ovarium 3–4-loculare.

TYPE: WESTERN AUSTRALIA: 16.6 km W of highway on fence line 57.7 km N of Murchison River, *K.D. Hill 2569, L.A.S. Johnson, D.F. Blaxell & M.I.H. Brooker*, 21 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

≡ *E. loxophleba* Benth. var. *fruticosa* Benth., Fl. Austral. 3: 252 (1867).

TYPE CITATION: 'Murchison river, Oldfield; Salt river, Maxwell.'

TYPE: WESTERN AUSTRALIA: Murchison River, *A. Oldfield* (lecto NSW; isolecto K, MEL; here designated). This specimen is designated the lectotype in order to fix this name to this taxon, the original syntypes representing two different subspecies (the Maxwell collection is subsp. *loxophleba*). This variety was included in *E. foecunda* var. *loxophleba* by Maiden (Crit. Revis. Eucalyptus 1: 112 (1904)), recognised as a variety by Blakely (1934), and included in *E. loxophleba* by Hall & Johnston (1964).

Tree to 15 m. *Bark* persistent to around top of trunk, grey, fibrous-flaky; branches smooth, smaller twigs glaucous. *Juvenile leaves* petiolate, ovate to orbicular, acute to rounded, dull, bluish, to 12 cm long, 5 cm wide. *Adult leaves* glossy, lanceolate, falcate, acute, 6–10 cm long, 10–25 mm wide; petioles 10–18 mm long; lateral veins at 10–30°

to midrib. *Peduncles* 2-angled, 7–12 mm long; pedicels grooved, 2–5 mm long. *Mature buds* obovoid, c. 6 mm long, c. 4 mm wide. *Fruits* conical, 3–4-locular, 6–8 mm long, 4–6 mm diam.

Distinguished by the combination of tree habit and the smooth bark from the top of the trunk. The twigs are variably glaucous, but usually distinctly so. Pedicels are slender and medium to long, and the ovary is 3–4-locular (tending to 3-locular in the north of the range).

DISTRIBUTION: Widespread and common across the north of the range of the species, from the region between north of the Murchison River (27°S) and around Dongara on the coast east to Lake Barlee and the Die Hardy Range, and south to Wongan Hills and Kunoppin (Irwin, Avon, Austin and Coolgardie Districts). Figure 3.

ECOLOGY: Locally abundant on deeper, loamy, often red soils on flat sites.

CONSERVATION STATUS: Widespread, not considered to be at risk.

The epithet is derived from Latin *supra*, above, and late Latin *laevis* (classically *levis*), smooth, in reference to the partly deciduous bark leaving the branches and sometimes the upper trunk smooth.

SELECTED SPECIMENS (from 40 examined): WESTERN AUSTRALIA: 34 km S of Wannoo, *Blaxell W75/109 & Brooker*, 9 Oct 1975 (NSW, CANB); 6 miles [10 km] E of Pindar, *Beard 6680*, 26 Sep 1973 (PERTH, NSW); 27.6 km N of Burnerbinmah turnoff on Paynes Find – Yalgoo road, *Hill 2582 & Johnson*, 24 Nov 1986 (NSW, CANB, CBG, MEL, PERTH); 4 miles [6 km] E of Geraldton, *Chippendale 239*, 8 Aug 1967 (CANB, NSW); near Mingenew, *Diels 3037*, 9 June 1901 (B, NSW); Dongara, *Maiden*, Oct 1909 (NSW); summit of Mt Singleton, *Hill 2591 & Johnson*, 24 Nov 1986 (NSW, PERTH); Cliff Head turnoff on Brand Highway, *Brooker 8633*, 28 Aug 1984 (CANB, NSW, PERTH); between Beacon and Mt Churchman, *Brooker 8495*, 16 Mar 1984 (CANB, NSW, PERTH); 31.6 km S of Diemals–Menzies road on Bullfinch road, *Hill 2613 & Johnson*, 25 Nov 1986 (NSW, PERTH); 3 km E of Kununoppin, *Hill 2500, Johnson & Blaxell*, 16 Nov 1986 (NSW, PERTH).

3c. **Eucalyptus loxophleba** *Benth.* subsp. **lissophloia** *L. Johnson & K. Hill*, **subsp. nov.**

Inter subspecies *E. loxophlebae* habitu pluricauli, cortice deciduo, ramulis plerumque valde pruinosis distinguitur. Ab subspecie *loxophleba* alabastris fructibusque majores differt.

TYPE: WESTERN AUSTRALIA: Cardunia Rocks, *D.F. Blaxell 1749 & L.D. Pryor*, 16 Sep 1978 (holo NSW; iso CANB, K, PERTH).

Mallee to 8 m. *Bark* smooth, brownish, yellow-brown or greenish to bronze, smaller twigs glaucous. *Juvenile leaves* petiolate, ovate to orbicular, acute to rounded, dull, bluish, to 12 cm long, 9 cm wide. *Adult leaves* glossy, lanceolate, falcate, acute, 8–14 cm long, 10–15 mm wide; petioles 10–18 mm long; lateral veins at 10–30° to midrib. *Peduncles* 2-angled, 8–18 mm long; pedicels grooved, 2–5 mm long. *Mature buds* obovoid, 6–10 mm long, 3–4 mm wide. *Fruits* cup-shaped to conical, 4-locular, 6–9 mm long, 4–6 mm diam. Figure 4.

Distinguished by the mallee habit, the mostly or entirely smooth bark, and the usually strongly glaucous branchlets. Buds and fruits are larger than those of subsp. *loxophleba*.

Subsp. 'smooth bark' of Brooker & Kleinig (1990).

DISTRIBUTION: Locally abundant through the inland southwest of Western Australia, from around Bencubbin and west of Merredin east to south of Lake Minigwal and Coonana, and south to Peak Charles (Avon, Roe, Coolgardie and southern Austin districts). Figure 3.

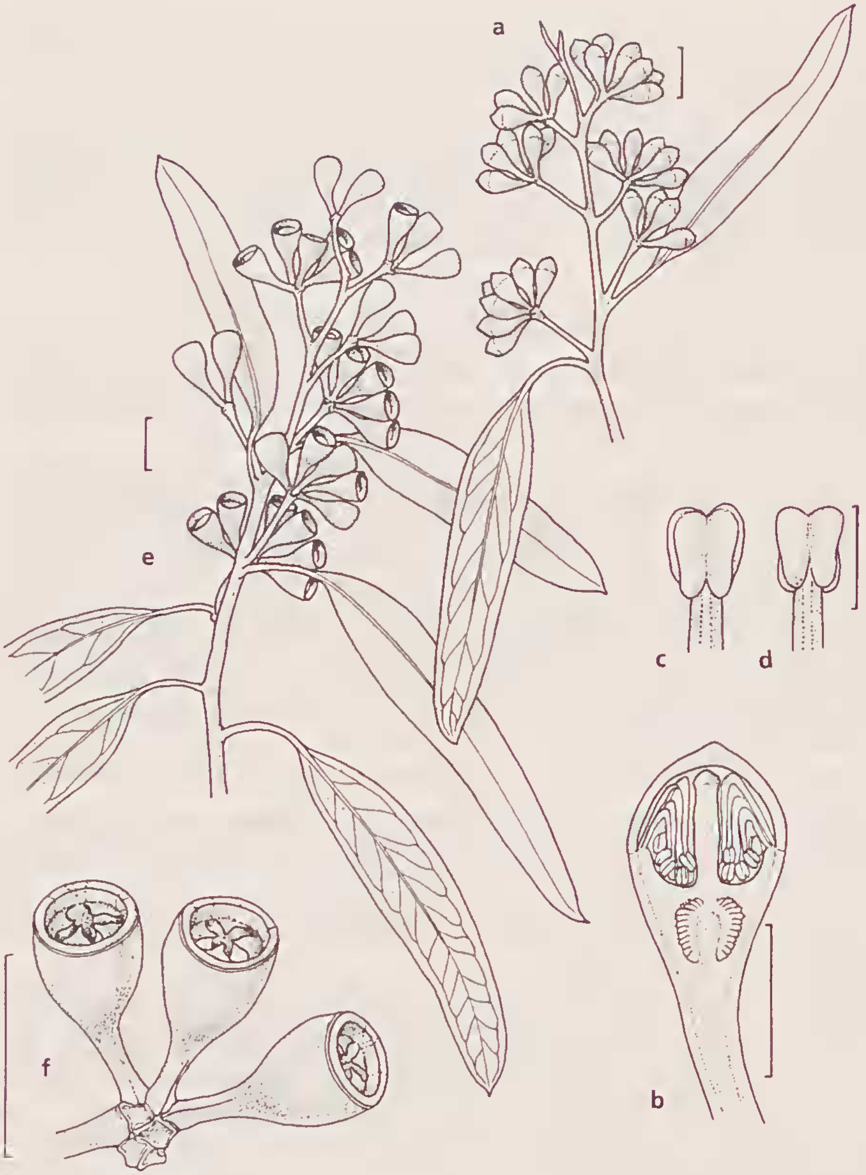

Figure 4. *E. loxophleba* subsp. *lissophloia*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, adult leaves and fruits; f, fruits (all from *Blaxell 1749*). Scale bar: a, e, f = 1 cm; b = 5 mm; c, d = 1 mm.

ECOLOGY: A widely distributed taxon, occurring with a variety of mallee species on sandy soils, especially where these are shallow and overlie granitic rocks. Subspecies *lissophloia* does not appear to intergrade with subspecies *loxophleba* or with subspecies *supralaevis* to any great extent.

Hybrids are known with *E. kruseana* F. Muell. This hybrid was named *E. brachyphylla* C. Gardner, though it was regarded as a distinct species by its author. It was also treated as such by Chippendale (1988). Field observations show a full range of variation between the parent species, and progeny trials show segregation between the parents (Pryor & Blaxell, pers. comm. & in prep.). Limited intergradation also occurs between *E. loxophleba* subsp. *lissophloia* and *E. gratiae* (Brooker) L. Johnson & K. Hill.

CONSERVATION STATUS: Not considered to be at risk.

The epithet is from the Greek *lissos*, smooth, and *phloios*, bark of tree, in reference to the distinctive smooth bark of this subspecies.

SELECTED SPECIMENS (from 38 examined): WESTERN AUSTRALIA: 3 miles [5 km] SW of Merredin, *Chippendale 80*, 6 Mar 1967 (CANB, NSW); 6.4 km N of Southern Cross, *Brooker 6475*, 24 Aug 1979 (CANB, NSW, PERTH); 61 km W of Coolgardie on Southern Cross road, *Brooker 5665*, 6 Apr 1977 (CANB, NSW, PERTH); E side of Peak Charles, *Hill 2331, Johnson & Blaxell*, 8 Nov 1986 (NSW, PERTH); 55.8 km E of highway in Goongarrie Reserve, *Brooker 9091*, 13 Nov 1985 (CANB, NSW, PERTH); 26.7 km E of Norseman on highway, *Hill 677A & Blaxell*, 14 Nov 1983 (NSW, CANB, PERTH); 51.7 km E of Karonie, *Hill 567, Johnson, Blaxell, Brooker & Hopper*, 5 Nov 1983 (NSW, CANB, PERTH).

***E. kruseana* x *E. loxophleba* subsp. *lissophloia*:** c. 40 km E of Widgiemooltha on road to 'Binnerinjie' homestead, *Blaxell 1662*, 21 June 1978 (NSW); Cardunia Rocks, *Blaxell 1654 & Pryor*, 20 June 1978 (NSW).

***E. gratiae* x *E. loxophleba* subsp. *lissophloia*:** cited under *E. gratiae*.

4. Eucalyptus gratiae *(Brooker) L. Johnson & K. Hill*, comb. nov.

BASIONYM: *Eucalyptus loxophleba* Benth. subsp. *gratiae* Brooker, Nuytsia 1: 248 (1972).

TYPE CITATION: 'Type: 0.5 mile west of Burngup, Western Australia (33°01'S, 118°41'E), 3 Nov. 1969, *M.I.H. Brooker* 2273 (holo: PERTH).'

Mallee to 8 m. *Bark* smooth, brownish, yellow-brown or greenish to bronze, smaller twigs glaucous. *Juvenile leaves* petiolate, ovate to orbicular, acute to rounded, dull, bluish, 8–13 cm long, 5–9 cm wide. *Adult leaves* glossy, lanceolate, falcate, acute, 8–16 cm long, 15–28 mm wide; petioles 10–18 mm long; lateral veins at 10–30° to midrib. *Umbellasters* axillary, 7-flowered, often clustered at leafless ends of small branches; peduncles 2-angled, 3–24 mm long; pedicels grooved, 2–5 mm long. *Mature buds* obovoid, 9–15 mm long, 4–5 mm diam.; calyptra shorter than hypanthium, hemispherical, rarely apiculate. *Fruits* conical, 4–5-locular, 9–12 mm long, 6–9 mm diam.; disc narrow, flat; valves deeply sunken. *Seeds* dull, dark brown, cuboid, to 1.5 mm long; chaff similar, thinner, or linear, to 4 mm long.

Distinguished by the mallee habit, the smooth bark, the glaucous branchlets, and the large buds and fruits. *E. gratiae* is in part broadly sympatric with *E. loxophleba* subsp. *loxophleba*, occupying sites with poorer or shallower soils. The two do not appear to interbreed, although limited intergradation occurs with *E. loxophleba* subsp. *lissophloia* where ranges adjoin. *E. gratiae* is also morphologically more distinct from the subspecies of *E. loxophleba* than these are from each other, and is hence raised to specific rank.

DISTRIBUTION: Locally abundant in the south-eastern Wheat Belt, around the area including Pingrup, Lake Grace, Hyden and Newdegate (Roe District). Figure 3.

Ecology: Largely restricted to mallee shrublands on less fertile soils, often on lower areas or shallow soils.

Conservation status: Not considered to be at risk.

Selected specimens (from 14 examined): Western Australia (W to E): 5.6 km N of Nyabing towards Kukerin, *Brooker 9142*, 9 Dec 1985 (CANB, NSW, PERTH); 14 km N of Lake Grace township, *Hill 327, Johnson & Blaxell*, 23 Oct 1983 (NSW, CANB, PERTH); 15 km E of Hyden on Lake King road, *Brooker 6322*, 12 Aug 1979 (CANB, NSW, PERTH); 4.1 km N of Giles Road on Magenta Road, *Hill 3142*, 7 Sep 1988 (NSW); 15.5 miles [25 km] W of Lake King township, *Chippendale 224*, 17 Mar 1967 (CANB, NSW).

E. gratiae* x *E. toxophleba* subsp. *lissophloia: Dragon Rock, *Hill 2473, Johnson & Blaxell*, 14 Nov 1986 (NSW, PERTH).

Series *Astringentes*

Species 5 and 6 are placed in series *Astringentes*, which is defined by the combination: pith glands present; adult leaves glossy, green, with small stomata; filaments erect; anthers oblong, dorsifixed, versatile; stemonophore narrow; seeds shallowly pitted, dorsiventrally compressed. The extracodical series epithet *Astringentes* (referring to the included species *E. astringens* (Maiden) Maiden) is here substituted for 'Occidentales' as used by Pryor & Johnson (1971), to preserve the independence of the extracodical system by avoiding confusion with Ser. *Occidentales* Blakely (used by Chippendale, 1988), which includes a quite different group of species of subgenus *Eucalyptus* ('Monocalyptus'). The extracodical epithet *Occidentalosae* for the subseries including *E. occidentalis* can remain.

5. Eucalyptus aspratilis *L. Johnson & K. Hill*, nom. et stat. nov.

≡ *Eucalyptus occidentalis* Endl. var. *stenantha* Diels ex Blakely, Key Eucalypts: 110 (1934).

Type citation: 'W.A. – Lake Cowan.'

Type: Western Australia: near Lake Cowan, *Diels 5245*, 1 Nov 1901 (holo NSW).

[*E. occidentalis* Endl. var. *stenantha* Diels ex Maiden, Crit. Revis. Eucalyptus 4: 147 (1919), nom. prov.]

≡ *E. occidentalis* Endl. var. *grandiflora* Maiden, Crit. Revis. Eucalyptus 4: 149 (1919).

Type citation: 'Kurrawang, W.A. (Dr. J.B. Cleland.) Type of var. *grandiflora*' (legend to pl. 150).

Type: Western Australia: Kurrawang, *J.B. Cleland 8161/15*, Sep 1915 (holo: NSW).

≡ *E. eremophila* (Diels) Maiden var. *grandiflora* Maiden, Crit. Revis. Eucalyptus 7: 22 (1923).

Mallee to 5 m. *Bark* usually persistent on trunk, fibrous-scaly and shaggy; smooth above, grey and light brown. *Adult leaves* disjunct, lanceolate to ovate-lanceolate, acuminate, 5–12 cm long, 10–30 mm wide; petioles 9–22 mm long, slightly flattened; lateral veins indistinct, well-spaced, at 20–60° to midrib, irregularly branched; intramarginal vein indistinct. *Umbellasters* axillary, 7-flowered; peduncles 2-angled or somewhat flattened apically, 1.6–2.3 cm long, to 4 mm wide, often reflexed; pedicels angled, 6–11 mm long. *Mature buds* 25–33 mm long, 5–6 mm diam.; calyptra cylindrical, obtuse, slightly flared at base, narrower than hypanthium, 2–3 times longer than hypanthium. *Fruits* elongate, cup-shaped or pyriform, 4- or 5-locular; hypanthium

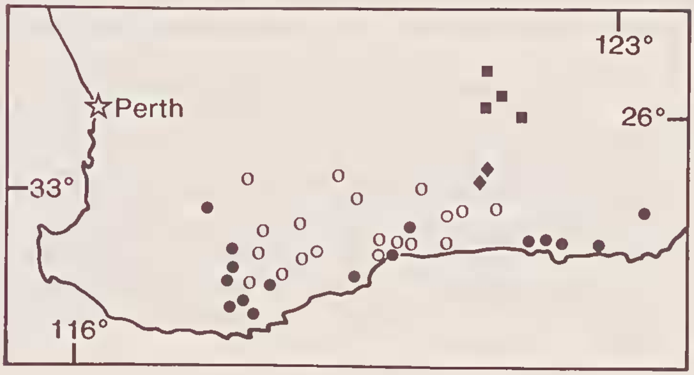

Figure 5. Distribution of *E. occidentalis* (●), *E.* species F (○), *E. aspratilis* (■) and *E. aspratilis* – *E.* species F intergrades (◆).

11–14 mm long, 8–10 mm wide; calyptra scar c. 1 mm wide, appearing continuous with disc; disc broad, initially slightly raised, ultimately strongly incurved for more than half its width, and enclosing valve bases; valves narrowly triangular, vertically exserted, strongly acuminate. *Seeds* dark brown, satiny, angular, cuboid, to 2 mm long; chaff dull, brown, either cuboid, to 1 mm long, or linear, to 4 mm long.

Distinguished within the series *Occidentales* by the mallee habit and the persistent bark on the trunk. Anthers are relatively large in comparison with those of related species.

DISTRIBUTION: An uncommon species in the region south from around Coolgardie to east of Norseman (Coolgardie District). Figure 5. A disjunct population around Peak Charles is intermediate between this taxon and *E.* species F of Brooker & Kleinig (1990).

ECOLOGY: Restricted to mallee heath communities on shallow sandy soils around granite domes.

CONSERVATION STATUS: 3R-. Although widely scattered, *E. aspratilis* is restricted to a very narrow habitat range.

The epithet is from the Latin *aspratilis*, rough, referring to the persistent bark, in contrast to that of the related *E.* species F.

SELECTED SPECIMENS (from 7 examined): WESTERN AUSTRALIA (N to S): Twenty-five Mile Rocks, *Brooker 8902*, 7 Apr 1985 (CANB, NSW, PERTH); Burra Rock, *Hill 2636 & Johnson*, 26 Nov 1986 (NSW, PERTH); 52.5 km W of Coolgardie–Norseman road on Hyden track, *Hill 2854*, 25 Aug 1988 (NSW).

***E. aspratilis* – *E.* species F intergrade:** E side of Peak Charles, *Hill 2333, Johnson & Blaxell*, 8 Nov 1986 (NSW, PERTH).

6. Eucalyptus sargentii *Maiden*, Crit. Revis. Eucalyptus 7: 58 (1924).

TYPE CITATION: 'Type – Meare's Lake, County Peak, Beverley, Western Australia, O.H. Sargent. No. 707.'

TYPE: holo NSW; iso CANB.

Tree to 12 m or mallee. *Bark* usually persistent on lower of trunk, dark grey to black, coarsely platy-fibrous, smooth above, semiglossy grey, olive, red-brown or bronze. *Juveniles leaves* subsessile, opposite and lanceolate for 3–4 nodes, then becoming disjunct, linear, to 7 cm long, 3 mm wide. *Adult leaves* narrow-lanceolate, 5–10 cm long, 5–13 mm wide; petioles 8–14 mm long; lateral veins moderately spaced, at 20–40° to midrib; oil glands densely packed, spherical. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles 6–22 mm long; pedicels 3–8 mm long. *Buds* cylindrical, 16–30 mm long, 4–7 mm diam.; calyptra 3 or more times longer than hypanthium, elongate-conical, acuminate. *Stamens* all fertile; filaments erect in bud; anthers oblong, dorsifixed, versatile, dehiscing through parallel slits. *Fruits* cylindrical, usually wider at apex, to obconical, 7–12 mm long, 5–9 mm diam.; stemonophore persistent, flat; disc flat, depressed towards centre; valves erect, acicular, basally enclosed, apically exserted. *Seeds* brown to red-brown, satiny, ovoid, shallowly regularly reticulate; chaff dull.

Two geographic subspecies are recognised.

1 Buds less than 24 mm long; fruits 8 mm or less diam. .... 6a. subsp. sargentii

1* Buds more than 24 mm long; fruits 8 mm or more diam. .... 6b. subsp. fallens

6a. Eucalyptus sargentii *Maiden* subsp. sargentii

Tree to 12 m, rarely a mallee. *Bark* persistent on lower trunk. *Adult leaves* narrow-lanceolate, 6–10 cm long, 5–13 mm wide; petioles 8–12 mm long. *Peduncles* 6–22 mm long; pedicels 3–5 mm long. *Buds* cylindrical, 16–23 mm long, 4–5 mm diam. *Fruits* cylindrical to obconical, 7–10 mm long, 5–8 mm diam.

Distribution: From Coorow to Lake Meares, east to Lake Hurlstone (Avon and Roe Districts). Figure 6.

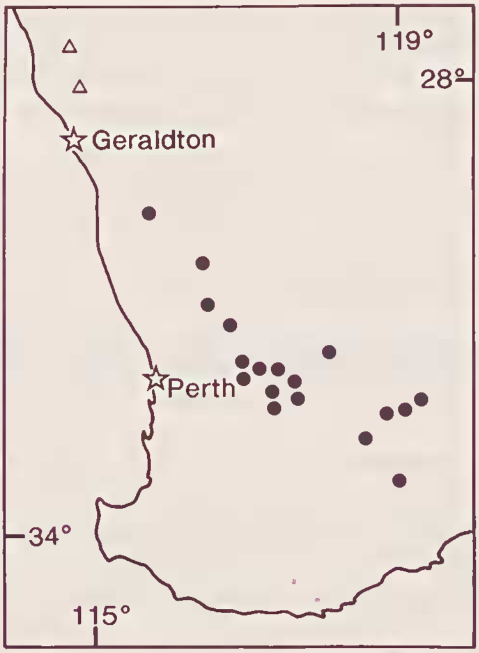

Figure 6. Distribution of *E. sargentii* subsp. *sargentii* (●) and subsp. *fallens* (△).

Ecology: Sporadically distributed but locally abundant in highly saline situations bordering salt lakes and swamps.

Conservation status: Not considered to be at risk.

Selected specimens (from 27 examined): Western Australia (W to E): Woollberoo, ESE of Coorow, *Brooker 9058*, 3 Nov 1985 (CANB, NSW, PERTH); 11.8 km E of rail crossing at Carani, *Brooker 7582*, 26 Aug 1982 (CANB, NSW, PERTH); 1.0 km W of Kauring rail crossing on York road, *Hill 2965*m 30 Aug 1988 (NSW); 8 miles [c. 12 km] SSE of Dangin, *Johnson W117*, 14 Dec 1960 (NSW); saltflats near Quairading, *Blaxell W75/80 & Brooker*, 4 Oct 1975 (NSW, CANB, K, PERTH); 7.9 km W of Pingaring, *Brooker 9478*, 21 Oct 1986 (CANB, NSW, PERTH); 12.1 km N of Ryans Road on Lockhart Road, *Hill 3140*, 7 Sep 1988 (NSW); 2.3 km E of Ravensthorpe road on Holland track, *Hill 2475, Johnson & Blaxell*, 14 Nov 1986 (NSW, CANB, CBG, MEL, PERTH).

6b. Eucalyptus sargentii *Maiden* **subsp. fallens** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie *sargentii* alabastris fructibusque majoribus distinguitur.

Type: Western Australia: 3 km N of Binnu on Highway 1, *K.D. Hill 2565, L.A.S. Johnson, D.F. Blaxell & M.I.H. Brooker*, 21 Nov 1986 (holo NSW; iso PERTH).

Tree to 6 m or mallee. *Bark* persistent on base of trunk in larger individuals only. *Adult leaves* narrow-lanceolate, 5–8 cm long, 6–12 mm wide; petioles 9–14 mm long. *Peduncles* 12–16 mm long; pedicels 4–8 mm long. *Buds* cylindrical, 25–30 mm long, 6–7 mm diam. *Fruits* cylindrical to obconical, 10–12 mm long, 8–9 mm diam. Figure 7.

Distinguished from subsp. *sargentii* by the larger buds and fruits (buds 16–23 mm long, 4–5 mm diam., fruits 7–10 mm long, 5–8 mm diam. in *E. sargentii*). Anthers in the Binnu population are larger than those of subsp. *sargentii*.

Distribution: Known from two populations, near Binnu, and about 60 km north of there on Eurardy Station (Irwin District). Figure 6.

Ecology: Restricted to somewhat saline soils around salty swamps or creek lines.

No intergrades occur with the more southerly *E. sargentii*, which, though somewhat variable in size of its parts, does not exhibit any widespread clinal approach to subsp. *fallens*.

Conservation status: 2R-.

The epithet is from the Latin *fallens*, in its sense of 'deceiving', since on its earlier observations it was mistaken for a species of the *E. eremophila* group.

Selected specimens (from 5 examined): Western Australia: Bungabandi Creek, *Brooker 9471*, 9 Oct 1986 (CANB, NSW, PERTH); 3 km N of Binnu, *Brooker 9063*, 4 Nov 1985 (CANB, NSW, PERTH).

Series *Erythronemae*

Together with others to be described elsewhere, species 7 to 14 are placed in series *Erythronemae* subseries *Platypodosae*, defined by the combination: pith glands present; stomata large, translucent; filaments erect well before maturity of the bud; anthers oblong, dorsifixed, versatile; stemonophore broad; seeds distinctly reticulately pitted, dorsiventrally compressed.

7. Eucalyptus spathulata *Hook.*, Hooker's Icon. Pl. 7: t. 611 (1844).

Type citation: 'Hab. Swan River. Jas. Drummond, (Suppl. Coll. n. 20).'

Type: Western Australia: Swan River Colony, *J. Drummond, supplementary collection, no. 20* (holo K).

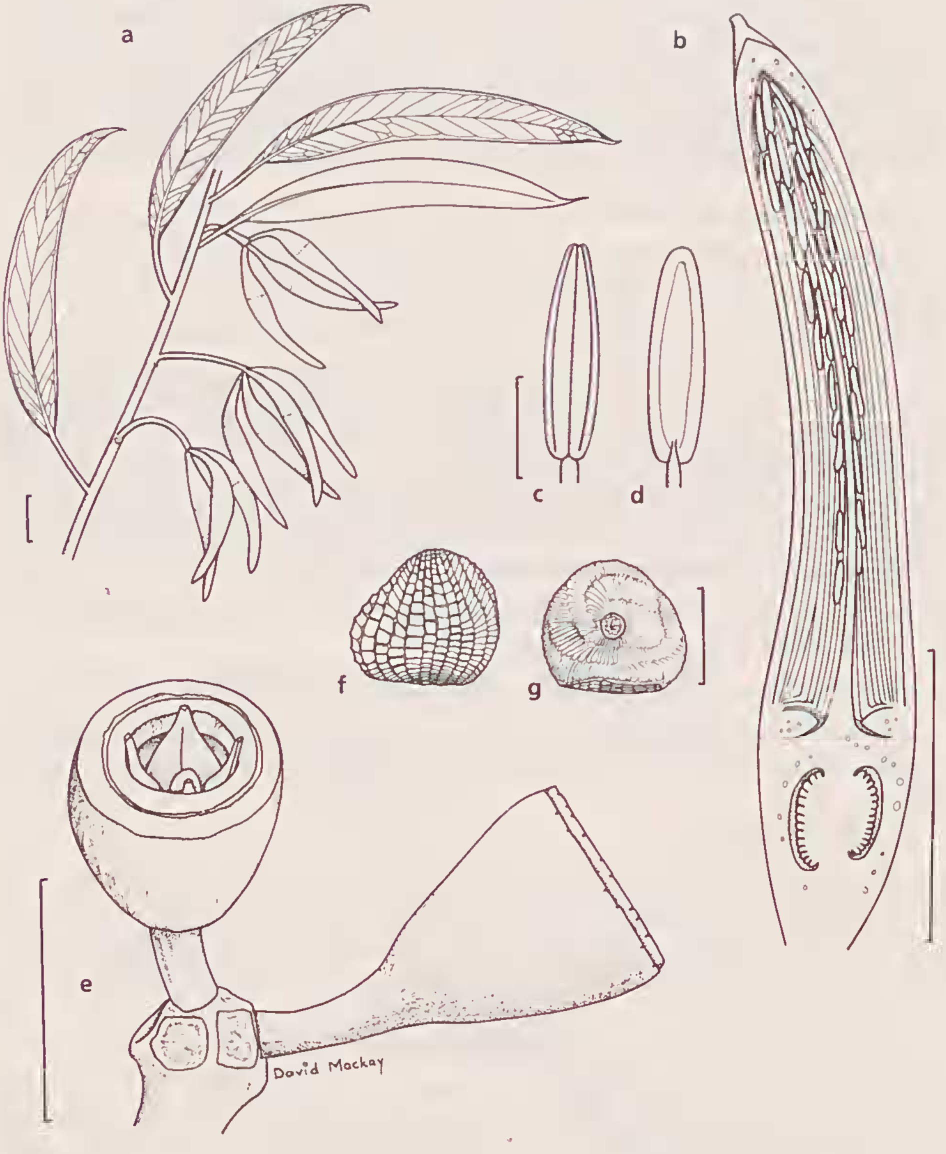

Figure 7. *E. sargentii* subsp. *fallens.* **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits; f, g, seed (all from *Brooker 9036*). Scale bar: a, b, e = 1 cm; c, d, f, g = 1 mm.

Tree (mallet) to 12 m. *Bark* smooth, semiglossy, dark grey to red-brown or bronze. Juvenile leaves disjunct, linear. *Adult leaves* disjunct, linear, glossy, with a distinct bluish sheen from the large translucent stomata, 5–9 cm long, 2–4 mm wide; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles flattened, 5–15 mm long; pedicels flattened or angular, 2–4 mm long. *Buds* cylindrical, 10–13 mm long, 3–4 mm diam.; calyptra more than 2 times longer than hypanthium, cylindrical, apically rounded to acute. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical or hemispherical, 4–6 mm long, 4–6 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. Figure 8.

The above description applies to a narrowed circumscription of *E. spathulata*, and is included here to allow comparison with segregate taxa described below.

The non-lignotuberous 'mallet' habit, where main branches arise acutely at more or less the same point on the trunk, occurs apparently independently in several groups of otherwise mallee species in Western Australia. *E. spathulata* in the restricted sense is an example, being a 'mallet' whereas the segregate taxa (below) are mallees. It is also more restricted in range and more specialised in habitat.

DISTRIBUTION: Locally frequent, in the Tammin–Pingaring–Dumbleyung–Ongerup region (Avon and Roe Districts). Figure 9.

ECOLOGY: Localised in mallet woodlands, on saline sites around salt pans or along drainage lines.

Intergrades occur with *E. vegrandis*, and hybrids are known with *E. loxophleba* subsp. *loxophleba* and *E. platypus* Hook. (a specimen of the latter hybrid constitutes the type of *E. platypus* Hook. var. *heterophylla* Blakely).

CONSERVATION STATUS: 3V. Although locally frequent, this species occurs almost entirely in agricultural country. The habitat is also very narrow, fringing saline areas. Agricultural practices are causing rapid spread of these saline areas, in many sites engulfing the habitat of this species faster than the species can propagate into the newly created fringing zones.

SELECTED SPECIMENS (from 15 examined): Western Australia: 4.5 km W of Tammin, *L. Johnson 9112 & M. Johnson*, 18 May 1988 (NSW, PERTH); 21.8 km S of Lake Grace, *Hill 328, Johnson & Blaxell*, 23 Oct 1983 (NSW); 24 km from Katanning on road to Nyabing, *Crisp 5195*, 16 Jan 1975 (CBG, CANB, MO, NSW, PERTH); Ongerup – Pingrup road (33°52'S 118°28'E), *Johnson 9171 a–e & B. Briggs*, 31 Oct 1988 (NSW, CANB).

E. loxophleba* subsp. *loxophleba* x *E. spathulata: cited under the former.

E. platypus* x *E. spathulata: 10 km NNW of Ongerup, *Hopper 2401*, 31 July 1982 (PERTH, photo NSW); near Ongerup, *Stoward 133*, 30 May 1917 (NSW, type of *E. platypus* var. *heterophylla*).

***E. spathulata* – *E. vegrandis* intergrades**: Harrismith, *Gardner 2105*, 5 May 1924 (PERTH, NSW); 6 miles [10 km] N of Lake Grace, *Johnson W 235*, 19 Dec 1960 (NSW); 19 km N of Ongerup on Lake Grace road, *B.Briggs 7926 & Johnson*, 11 Oct 1984 (NSW, PERTH).

8. Eucalyptus vegrandis *L. Johnson & K. Hill*, sp. nov.

Affinis *E. spathulatae* sed habitu pluricauli, foliis latioribus et fructibus majoribus distinguitur.

TYPE: WESTERN AUSTRALIA: 5 km NW of Ongerup, *K.D. Hill 337, L.A.S. Johnson & D.F. Blaxell*, 23 Oct 1983 (holo NSW; iso CANB, PERTH)

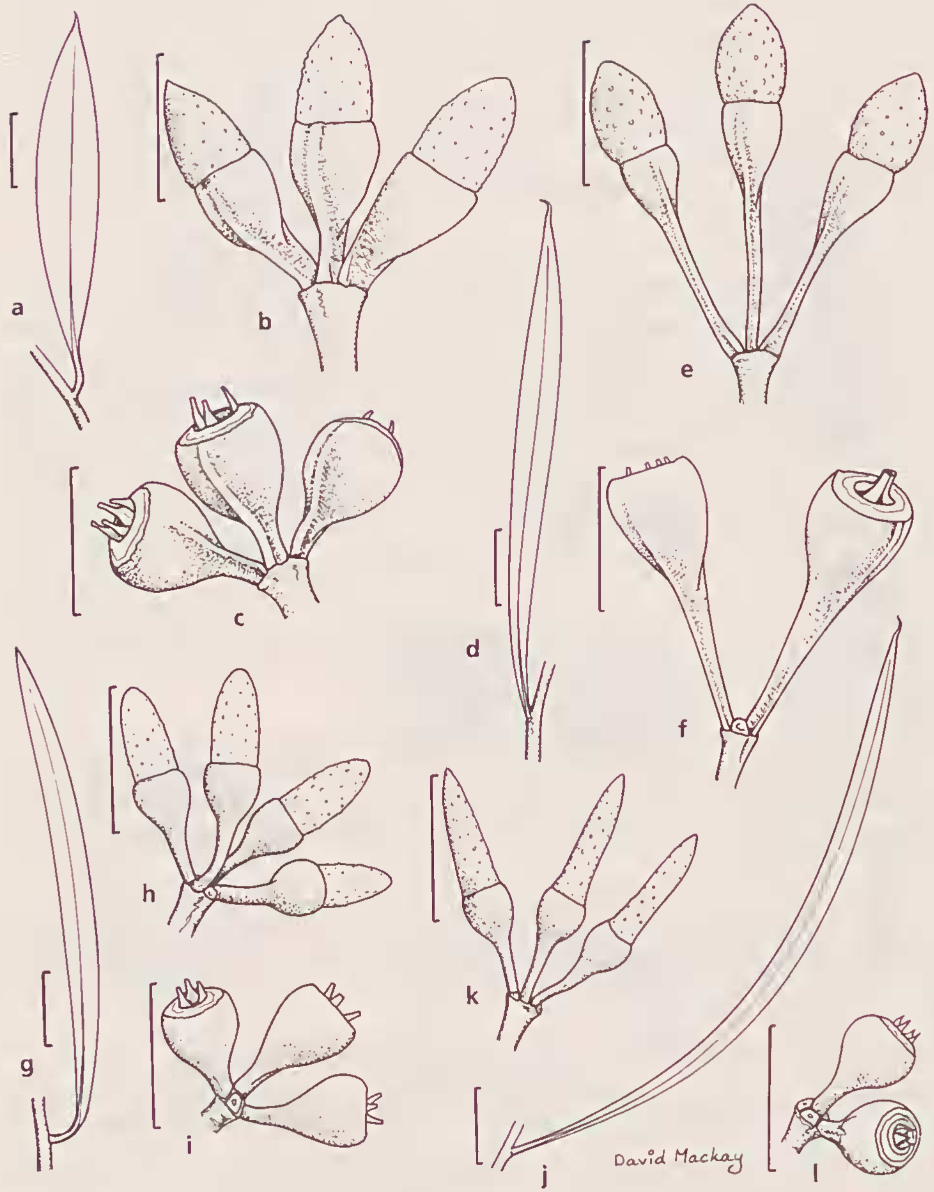

Figure 8. *E. suggrandis* subsp. *suggrandis*. **a**, adult leaf; **b**, buds; **c**, fruits (**a**, **c** from *Blaxell 1697*, **b** from *Brooker 8659*). *E. suggrandis* subsp. *alipes*. **d**, adult leaf; **e**, buds; **f**, fruits (all from *Blaxell W75/26 & Brooker*). *E. vegrandis*. **g**, adult leaf; **h**, buds; **i**, fruits (all from *Fitzgerald*, Nov 1907). *E. spathulata*. **j**, adult leaf; **k**, buds; **l**, fruits (all from *Hill 328, Johnson & Blaxell*). Scale bar = 1 cm.

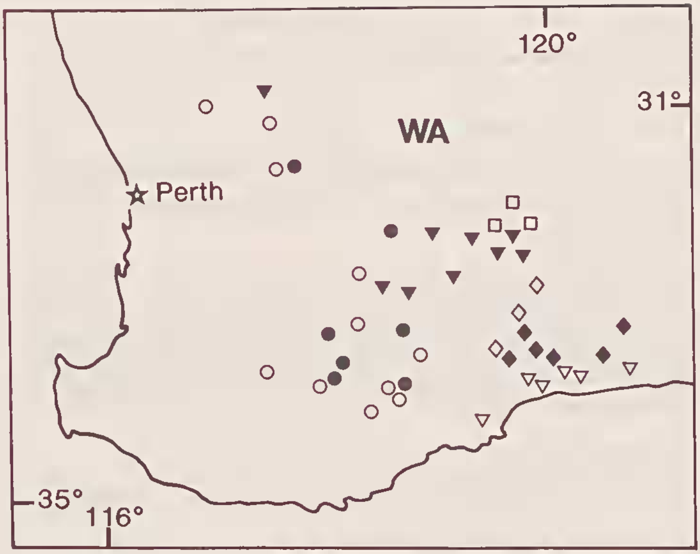

Figure 9. Distribution of *E. spathulata* (●), *E. vegrandis* (○), *E. suggrandis* subsp. *suggrandis* (▽), subsp. *alipes* (▼), subsp. *alipes* – subsp. *suggrandis* intergrades (◆), *E. steedmanii* (□) and *E. goniocarpa* (◇).

Mallee to 6 m, often less. *Bark* smooth, semiglossy, grey to brown or bronze. *Juvenile leaves* disjunct, linear to narrow-lanceolate. *Adult leaves* disjunct, linear to lanceolate, glossy, with a distinct bluish sheen from the large translucent stomata, 3–8 cm long, 3–8 mm wide; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 3- or 7-flowered; peduncles 5–15 mm long; pedicels 2–4 mm long. *Buds* cylindrical, 8–12 mm long, 3–5 mm diam.; calyptra slightly longer to almost 2 times longer than hypanthium, cylindrical, apically rounded. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical or hemispherical, 5–8 mm long, 5–8 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. Figure 8.

Differs from *E. spathulata* in the mallee habit, shorter and broader leaves, shorter calyptra and larger fruits. This taxon has a considerably wider range than *E. spathulata*, although the two are sympatric in the south of the range of *E. vegrandis*. Where the two are sympatric, *E. spathulata* occurs on low saline sites while *E. vegrandis* occurs on higher, sandy sites.

There is some breakdown between the two taxa in areas where both occur. Both species and some intergrades in the contact zones can be observed on the Pingrup road N of Ongerup, as was pointed out to us in the field by the late Ken Newbey. Occasional hybrids with *E. xanthonema* Turcz., i.e. *E. xanthonema* subsp. *xanthonema* as recognised by Brooker & Hopper (1991), are also recorded.

In the northernmost part of its area (north of c. 31°15′S), *E. vegrandis* has 3-flowered umbellasters (mostly 7-flowered in the south) and the fruits are larger than is general in the south.

Distribution: Scattered and sporadic, from Wongan Hills south to Arthur River and southeast to Ongerup (Avon and Roe Districts). Figure 9.

Ecology: Usually on moderately well-drained sandy loams, but often not far from somewhat saline areas.

Conservation status: Not considered to be at risk.

The epithet is from the Latin *vegrandis,* not very large, referring both to its small stature and because it has been confused with *E. suggrandis* under the name *E. spathulata* var. *grandiflora.*

Selected specimens (from 14 examined): Western Australia (W to E): c. 12 km E of rail crossing at Carani, *Brooker 7584,* 26 Aug 1982 (CANB, NSW, PERTH); 0.9 km from Dowerin–Trayning road on Minnievale Road, *Brooker 9748,* 3 Sep 1987 (CANB, NSW, PERTH); Cunderdin,*Fitzgerald,* Nov 1907 (NSW); Carganocking Hill, *Hill 654, Johnson, Blaxell, Brooker & Hopper,* 8 Nov 1983 (NSW, CANB, PERTH); Broome Hill, *Morrison,* 16 Apr 1904 (NSW); 6 km N of Borden, *Crisp 5174,* 15 Jan 1979 (CBG, CANB, NSW, PERTH).

***E. spathulata* – *E. vegrandis* intergrades:** cited under the former.

***E. loxophleba* subsp. *loxophleba* x *E. vegrandis*:** specimens cited under the former.

***E. vegrandis* x *E. xanthonema*:** 24 miles [38 km] S of Williams, *Melville 4358 & Royce,* 28 Aug 1953 (K, NSW)

9. Eucalyptus suggrandis *L. Johnson & K. Hill,* sp. nov.

Ab *E. spathulata* habitu multicauli plusminusve fruticoso, ab illa et ab *E. vegrandi* et *E. spathulata* alabastris fructibusque majoribus distinguitur.

Type: Western Australia: Hamersley Drive, 32.5 km from Old Ongerup Road, Fitzgerald River National Park, *K.D. Hill 3147,* 7 Sep 1988 (holo NSW; iso CANB).

≡ *Eucalyptus spathulata* Hook. var. *grandiflora* Benth., Fl. Austral. 3: 236 (1867).

Type citation: 'Phillips Range, Maxwell.'

Type: Western Australia: Phillips Range, *Maxwell* (holo K; iso NSW).

≡ *E. spathulata* Hook. subsp. *grandiflora* (Benth.) L. Johnson & Blaxell, Contrib. New South Wales Natl Herb. 4(7): 453 (1973).

Although this taxon includes a previously published variety (and subspecies), we have chosen to publish it as a new species with a new type from a known locality. This is preferred because the old concept of *E. spathulata* is now divided into four taxa, and where possible we have nominated types from known and studied populations.

Mallee to 4 m. *Bark* smooth, semiglossy, grey to light brown or bronze. Juvenile leaves disjunct, narrow-lanceolate. *Adult leaves* disjunct, narrow-lanceolate to lanceolate, glossy, with a distinct bluish sheen from the large, translucent stomata, 4–8 cm long, 5–15 mm wide; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 3–7-flowered; peduncles flattened, 8–15 mm long; pedicels flattened, 3–8 mm long. *Buds* often 2-winged, ovoid to shortly fusiform, 11–17 mm long, 5–7 mm diam.; calyptra slightly longer to 1.5 times longer than hypanthium, shortly cylindrical or convex-conical, apically rounded, smooth or finely verrucose. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical, 8–12 mm long, 6–9 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. Figure 8.

This taxon differs from *E. spathulata* and *E. vegrandis* in the larger buds with shorter calyptra, the larger fruits, and the broader leaves.

The epithet is from the Latin *suggrandis*, rather large, referring to the size of buds and fruits in comparison with *E. spathulata* and *E. vegrandis.*

Two subspecies, showing considerable intergradation where their ranges meet, are recognised on the basis of regional variation in leaf shape, bud number and ornamentation, and pedicel length.

1 Pedicel less than 4 mm long, umbellasters 3–7-flowered .... **9a. subsp. suggrandis**

1* Pedicel more than 4 mm long, umbellasters consistently 3-flowered .... **9b. subsp. alipes**

9a. Eucalyptus suggrandis *L. Johnson & K. Hill* **subsp. suggrandis**

Mallee. *Adult leaves* lanceolate to broad-lanceolate. *Umbellasters* 3–7-flowered. *Peduncle* 8–12 mm long, not strongly flattened. *Pedicels* 3–5 mm long, ribbed but not strongly winged. *Buds* 11–15 mm long, 5–6 mm diam, calyptra smooth or finely verrucose. *Fruits* 8–11 mm long, 8–9 mm diam. Figure 8.

Distinguished by the short pedicels and often 7-flowered umbellasters. In mature buds the calyptra is generally more warty than in subsp. *alipes*. The characters of the subspecies are most marked in the southernmost parts of the range.

DISTRIBUTION: Locally frequent, from the Gairdner River to the Young River, south of about 33°35'S (Eyre District). Figure 9.

ECOLOGY: A component of mixed mallee heath on various low-nutrient substrates.

Hybrids are recorded with *E. platypus* Hook. and *E.* species F (Brooker & Kleinig 1988).

CONSERVATION STATUS: Not considered to be at risk.

SELECTED SPECIMENS (from 19 examined): WESTERN AUSTRALIA (W to E): c. 10 km S of Ravensthorpe on Hopetoun road, *Blaxell 1697*, 23 June 1978 (NSW); Eldverton via Ravensthorpe, *Brooker 8659*, 4 Sep 1984 (CANB, NSW, PERTH); E slope of Mt Desmond, *B. Briggs 7716 & Johnson*, 10 Oct 1984 (NSW, PERTH); 4.5 km S of highway on Mason Bay road, *Hill 2359, Johnson, Blaxell & Brooker*, 9 Nov 1986 (NSW); 14.1 km S of Old Ongerup Road on Hamersley Drive, Fitzgerald River Natl Park, *B. Briggs 7685, 7686, 7687 & Johnson*, 9 Oct 1984 (NSW, PERTH); 10.0 km NW of Fitzgerald River Natl Park entrance on Devils Creek Road, *Hill 3111, 3112*, 6 Sep 1988 (NSW, CANB, PERTH); NW of Mt Maxwell, *Brooker 9910, 9911*, 9 Mar 1988 (CANB, NSW).

Intergrades between the subspecies (8 examined): 44 km N of Ravensthorpe – Albany road on Lake King road, *Hill 2381, Johnson, Blaxell & Brooker*, 9 Nov 1986 (NSW, PERTH); 11.7 km from Ravensthorpe–Lake King road on Aerodrome Road, *Hill 3023*, 1 Sep 1988 (NSW); 13.5 km from highway on Fitzgerald Road (33°25'S 119°45'E), *Brooker 8808*, 18 Jan 1985 (CANB, NSW, PERTH); 55 km W of Fields Road (5 ways) on Ravensthorpe track, *Hill 2343, Johnson & Blaxell*, 8 Nov 1986 (NSW, PERTH); Ravensthorpe, *Ralph & Stamford*, 26 June 1924 (NSW).

***E. suggrandis* subsp. *suggrandis* x *E.* species F:** 15.6 km from Highway 1 along Brook Road (33°49'S 119°05'E), *Brooker 9641*, 18 May 1987 (CANB, NSW, PERTH).

9b. Eucalyptus suggrandis *L. Johnson & K. Hill* **subsp. alipes** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie typica pedicellis longis aliquanto alatis et umbellastris semper trifloris differt.

TYPE: WESTERN AUSTRALIA: 46.0 km N of Coolgardie – Hyden road on Southern Cross road, *K.D. Hill 2894*, 26 Aug 1988 (holo NSW; iso CANB, PERTH).

Mallee. *Adult leaves* narrow-lanceolate to lanceolate. *Umbellasters* 3-flowered. Peduncle strongly flattened, 10–15 mm long. *Pedicels* 2-winged, 4–8 mm long. *Hypanthium* 2-winged;

calyptra smooth. *Fruits* 8–12 mm long, 6–8 mm diam. Figure 8.

Distinguished by the long, winged pedicels and always 3-flowered umbellasters. The related taxa *E. goniocarpa* and *E. steedmanii* are also 3-flowered, but have substantially larger buds and fruits (see below).

DISTRIBUTION: This subspecies ranges from Lake Grace to east of Hyden and midway between Lake King and Ravensthorpe (Roe and Eyre Districts). Figure 9.

ECOLOGY: A frequent component of mallee heath on sandy loam or sandplain, usually in low mixed mallee communities.

Hybrids are recorded with *E. depauperata*.

CONSERVATION STATUS: Not considered to be at risk.

The epithet is from the Latin *ala*, a wing, and *pes*, a foot, referring to the pedicels. It does not change with gender of the generic name and is pronounced as three syllables with the stress on the first.

SELECTED SPECIMENS (from 11 examined): WESTERN AUSTRALIA (W to E): 0.95 miles [1.5 km] E of Manmanning, *Smith 1158*, 11 Mar 1989 (MEL, AD, BRI, CANB, NSW, PERTH); 31.8 km W of Hyden towards Kondinin, *Hill 643, Johnson, Blaxell, Brooker & Hopper*, 8 Nov 1983 (NSW, CANB, PERTH); 4.2 km S of Varley road on Dragon Rock road, *Hill 2470, Johnson & Blaxell*, 14 Nov 1986 (NSW, PERTH); 43 km E of Hyden, *Blaxell W75/26 & Brooker*, 3 Oct 1975 (NSW); 46.0 km N of Coolgardie–Hyden road on Southern Cross road, *Hill 2894*, 26 Aug 1988 (NSW, CANB, PERTH); 13 miles [22 km] NE of Lake Grace, *M.I.H. Brooker 2271*, 5 June 1969 (CANB, NSW, PERTH).

E. suggrandis* subsp. *alipes* – subsp. *suggrandis* intergrades x *E. vegrandis: Facup Creek, *Diels 4767*, 8 Oct 1901 (B, NSW).

E. depauperata* x *E. suggrandis* subsp. *alipes: cited under *E. depauperata*.

E. platypus* x *E. suggrandis* subsp. *alipes: 10 km from Lake King towards Newdegate, *Strid 21964*, 1 Jan 1983 (NSW).

10. Eucalyptus goniocarpa *L. Johnson & K. Hill*, sp. nov.

Ab *E. eremophila* umbellastris saepissime trifloris et alabastris fructibusque bialatis differt. Ab *E. suggrandi* subsp. *alipede* foliis alabastris et fructibus plerumque majoribus differt.

TYPE: WESTERN AUSTRALIA: 5.6 km from Lake King on Ravensthorpe road, *K.D. Hill 2383, L.A.S. Johnson, D.F. Blaxell & M.I.H. Brooker*, 9 Nov 1986 (holo NSW; iso PERTH).

Tree (mallet) to 5 m, sometimes mallee to 4 m. *Bark* smooth, semiglossy, grey to brown or bronze. *Juvenile leaves* disjunct, lanceolate. *Adult leaves* disjunct, lanceolate, glossy, with a distinct bluish sheen from the large, translucent stomata, 4–8 cm long, 5–10 mm wide; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 3(–7)-flowered; peduncles flattened, 8–15 mm long; pedicels flattened, 3–8 mm long. *Buds* distinctly 2-winged, ovoid to shortly fusiform, 11–17 mm long, 5–7 mm diam.; calyptra slightly longer to 2 times as long as hypanthium, shortly cylindrical or convex-conical, apically rounded. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* 2-winged, ovoid to obconical, 8–12 mm long, 6–9 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. *Seeds* ovoid, somewhat flattened, grey-brown, regularly shallowly reticulate. Figure 10.

Distinguished from *E. eremophila* by the mostly 3-flowered umbellasters and the 2-winged buds and fruits. This taxon shows some resemblances to *E. suggrandis* subsp. *alipes*, from which it differs in the larger leaves, buds and fruits. *E. steedmanii* is also 3-flowered, but has strikingly quadrangular buds and fruits.

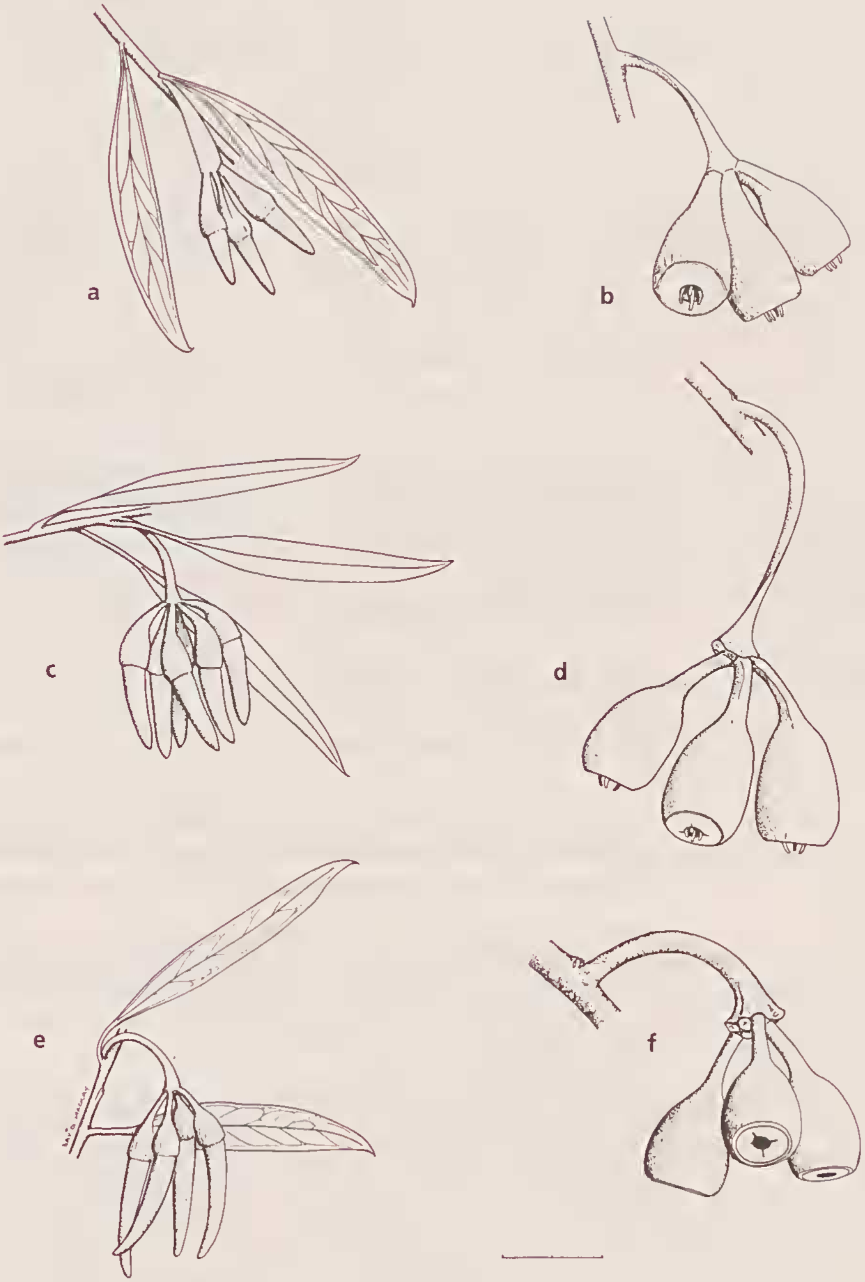

Figure 10. *E. goniocarpa.* **a**, adult leaves and buds; **b**, fruits (all from *Hill 2383, Johnson, Blaxell & Brooker*). *E. eremophila.* **c**, adult leaves and buds; **d**, fruits (all from *Hill 219 & Johnson*). *E. tenera.* **e**, adult leaves and buds; **f**, fruits (all from *Hill 2480 & Johnson*). Scale bar = 1 cm.

This taxon has been referred to *E. eremophila* subsp. *pterocarpa* (Blakely & Steedman) L. Johnson & Blaxell (Brooker & Kleinig 1990: 146). The latter is, however, said to occur in rocky sites, with no mention of the 'mallet' habit. This represents another possibly distinct species related to *E. eremophila*, and has not been rediscovered to date. It is distinguished by the larger fruits on longer pedicels, and the entire adult leaves.

DISTRIBUTION: Restricted to the Lake King district (Roe District). Figure 9.

ECOLOGY: This species forms dense, often monospecific, thickets on sandy loams on flat or slightly low areas.

Extensive intergrades occur with *E. platypus* Hook., forming dense low mallet stands in country west and northwest of Ravensthorpe (these are treated as *E. platypus* subsp. *congregata* ined. by Brooker & Kleinig 1990).

CONSERVATION STATUS: Not considered to be at risk.

The epithet is from the Greek *gonia*, an angle, and *karpos*, a fruit, referring to the strongly angled fruits.

SELECTED SPECIMENS (from 6 examined): WESTERN AUSTRALIA (N to S): 4.7 km from Lake King–Norseman road on Pickernill Road, *Brooker 8766*, 18 Dec 1984 (CANB, NSW, PERTH); 17.6 km E of Tarco Road (33°14'S 119°33'E), *Brooker 9716*, 15 July 1987 (CANB, NSW, PERTH); 9 km SW of Koornong Road on Fitzgerald Road, *Foreman 1339*, 29 Nov 1985 (MEL, CANB, NSW, PERTH).

Intergrades with *E. platypus* (from 3 examined): 5.8 km NW of Fitzgerald Road on West River Road, *Hill 2397, Johnson, Blaxell & Brooker*, 9 Nov 1986 (NSW).

11. Eucalyptus eremophila (Diels) Maiden, J. & Proc. Roy. Soc. New South Wales 54: 71 (1920).

BASIONYM: *Eucalyptus occidentalis* Endl. var. *eremophila* Diels in Diels & Pritzel, Bot. Jahrb. Syst. 35: 442 (1904).

TYPE CITATION: 'Hab. in distr. Coolgardie pr. Boorabbin in glareosis fl. m. Nov. (E. Pritzel Pl. Austr. occ. 917), pr. munic. Coolgardie in fruticetis apertis arenoso-lutosis flor. m. Oct. (D. 5237), in fruticetis apertis lutoso-lapidosis fl. m. Nov. pr. Gilmores (D. 5264).'

TYPE: WESTERN AUSTRALIA: near Coolgardie, *L. Diels 5237* (lecto NSW, here designated). Diels cited 3 syntypes in the protologue, but Maiden recorded the above as the Type for Diels's variety (Crit. Revis. Eucalyptus 4: 176, pl. 149, Figure 7). This specimen is hence here designated as the lectotype.

Tree (mallet) to 12 m or mallee to 6 m. *Bark* smooth, semiglossy, pale grey or silver to pale brown, yellow-brown or greenish. *Juvenile leaves* disjunct, broad-lanceolate to ovate, dull, grey, petiolate. *Adult leaves* disjunct, lanceolate, glossy, with a distinct bluish sheen from the large, translucent stomata, 4–12 cm long, 5–17 mm wide; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles flattened, 15–30 mm long, to 6 mm wide; pedicels 4–8 mm long. *Buds* cylindrical, 20–30 mm long, 5–7 mm diam.; calyptra 2.5 or more times longer than hypanthium, cylindrical, apically rounded or acuminate. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical, 8–13 mm long, 7–11 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. *Seeds* ovoid, somewhat flattened, grey-brown, regularly shallowly reticulate. Figure 10.

E. eremophila is described here under a reduced circumscription to allow comparison with segregate taxa described below.

DISTRIBUTION: Though here restricted from its most inclusive usage, this is a widespread and frequent species, extending from the Southern Wheat Belt (as far west as Lake Chinokup) through the southern and central Goldfields to the edges of the Nullarbor Plain and Great Victoria Desert. It is replaced in adjoining areas by one or other of the following three species or more locally by the partly sympatric *E. incerata* Brooker & Hopper ined. Figure 11.

ECOLOGY: *E. eremophila* shows a wide ecological tolerance, but is absent from the lightest and heaviest soils. It tends to occur as trees of mallet form in woodlands on heavier or more calcareous soils, and as mallees in mallee shrublands on sandier soils.

Hybrids are recorded with *E. grossa* F. Muell. ex Benth. and (in cultivation) *E. torquata* Luehm. The latter is an intersectional hybrid with a member of sect. *Dumaria.*

CONSERVATION STATUS: Widespread and abundant, not considered to be at risk.

SELECTED SPECIMENS (from 48 examined): WESTERN AUSTRALIA: 1 km SW of S shore of Lake Chinokup, *Hill 2462, Johnson & Blaxell,* 13 Nov 1986 (NSW, PERTH); corner of Ardler Road and Old Ravensthorpe Road, *L. Johnson 9082 & M. Johnson,* 15 May 1988 (NSW, PERTH); 7.2 miles [11.5 km] E of Southern Cross, *Chippendale 98,* 7 Mar 1967 (CANB, NSW); Mt Short, 10 miles [16 km] N of Ravensthorpe, *Wrigley,* 5 Nov 1968 (CBG 030980, NSW); 33.1 km W of Coolgardie – Norseman road on Hyden track, *Hill 605, Johnson, Blaxell, Brooker & Hopper,* 7 Nov 1983 (NSW); 30.8 km W of highway on Griggs Road, *Hill 2305, Johnson & Blaxell,* 7 Nov 1986 (NSW, PERTH); 52.1 km S of Norseman on highway, *Hill 2234, Johnson, Blaxell & Brooker,* 5 Nov 1986 (NSW, PERTH); 109 km W of Balladonia on Norseman road, *Brooker 6457,* 22 Aug 1979 (CANB, NSW, PERTH); 22.5 km W of Balladonia Roadhouse on Highway 1, *Hill 219 & Johnson,* 19 Oct 1983 (NSW); 8.6 km S of Queen Victoria Spring on Cundeelee track, *Hill 2682 & Johnson,* 30 Nov 1986 (NSW); 13 miles [21 km] E of Zanthus, *Brooker 2573,* 18 June 1970 (PERTH, NSW).

***E. eremophila* x *E. grossa*:** 23.6 km W of highway on Lake King road, *Brooker 8844,* 12 Feb 1985 (CANB, NSW, PERTH).

***E. eremophila* x *E. torquata*:** Cult. Oaklands, N.S.W., *O'Rourke,* July 1971 (NSW).

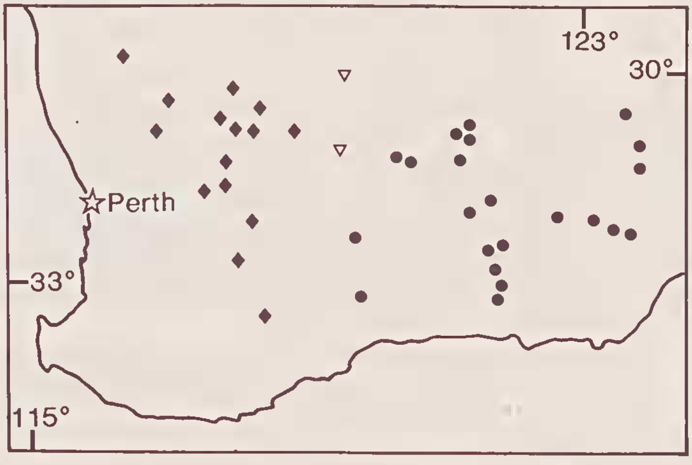

Figure 11. Distribution of *E. eremophila* (●), *E. tenera* (◆) and intergrades between the two (▽).

12. Eucalyptus tenera *L. Johnson & K. Hill*, sp. nov.

Affinis *E. eremophilae* sed characteribus sequentibus distinguitur: habitus et partes multi minores, umbellastrae saepissime 11-florae, pedunculi breviores gracilioresque, calyptra proportione longior acutiorque.

TYPE: WESTERN AUSTRALIA: Bencubbin, *M.I.H. Brooker 8493*, 16 Mar 1984 (holo NSW; iso AD, CANB, MEL, PERTH).

Mallee to 4 m. *Bark* smooth, semiglossy, pale grey or grey to red-brown or bronze. *Juvenile leaves* disjunct, linear for first 3–4 nodes, then becoming lanceolate. *Adult leaves* disjunct, lanceolate to broad-lanceolate, glossy, with a distinct bluish sheen from the large, translucent stomata, 4–8 cm long, 7–18 mm wide; petioles 10–14 mm long; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 7–11-flowered; peduncles narrowly flattened, 18–25 mm long, to 5 mm wide; pedicels 3–6 mm long. *Buds* cylindrical, 25–40 mm long, 5–7 mm diam.; calyptra 3 times or more longer than hypanthium, cylindrical, apiculate. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing by parallel slits. *Fruits* ovoid to obconical, 8–11 mm long, 7–10 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. *Seeds* ovoid, somewhat flattened, grey-brown, regularly shallowly reticulate. Figure 10.

E. tenera is distinguished from *E. eremophila* by the generally smaller form and smaller parts, the frequently 11-flowered umbellasters (always 7-flowered in the latter), the shorter, thinner and narrower peduncles, and the longer buds with a relatively longer and more acute calyptra.

DISTRIBUTION: Sporadically distributed over a wide area of the western and northern Wheat Belt, from Coorow to Chiddarcooping Rock, south towards Lake Chinokup. Figure 11.

ECOLOGY: Restricted to shallower, sandy soils with various other mallee species in areas where wandoo woodlands occupy the deeper soils.

Hybrids are recorded with *E. erythronema* sens. lat.

CONSERVATION STATUS: Not considered to be at immediate risk. The habitat of this species lies entirely within the Wheat Belt agricultural country, and continued degradation of that area may place the entire habitat at risk in the future.

The epithet is from the Latin *tener*, delicate, referring to the species having smaller and more slender parts than those of *E. eremophila* and *E. tephroclada*.

SELECTED SPECIMENS (from 17 examined): WESTERN AUSTRALIA (N to S): 'Doley's Farm', ESE of Coorow, *Brooker 9059*, 3 Nov 1985 (CANB, NSW, PERTH); 33.8 km S of Koorda on Wyalkatchem road, *Hill 2918*, 27 Aug 1988 (NSW); 28.3 km from Tammin on York road, *Brooker 9105*, 15 Nov 1985 (CANB, NSW PERTH); 9 km N of Scotsmans Road on Bimbijy Road, *Brooker 8435*, 25 Jan 1984 (CANB, NSW, PERTH); 2.0 km E of Dickinson Road on Nambadilling Road, *Hill 2480*, *Johnson & Blaxell*, 15 Nov 1986 (NSW, CANB, CBG, MEL, PERTH); Chiddarcooping Nature Reserve, *Brooker 7980*, 11 Feb 1983 (CANB, NSW, PERTH).

***E. erythronema* sens. lat. x *E. tenera*:** Kellerberrin, *Vachel*, Dec 1903 (NSW); 'Oxendale' farm, Barnes Road, SE of Yelbeni, *Brooker 9735*, 23 July 1987 (CANB, NSW, PERTH).

13. Eucalyptus tephroclada *L. Johnson & K. Hill*, sp. nov.

Inter species affinitatis *E. eremophilae* combinatione characterum sequentium distinguitur: ramuli pruinosi, fructus parvi.

Type: Western Australia: 6 km from Bruce Rock on Narembeen road, *K.D. Hill 2484, L.A.S. Johnson & D.F. Blaxell*, 15 Nov 1986 (holo NSW; iso PERTH).

[*Eucalyptus erythronema* Turcz. var. *roei* Beck ex Maiden, Crit. Revis. Eucalyptus 1: 110 (1904); in syn., nom. nud.; in part]

Mallee to 5 m. *Bark* smooth, semiglossy, dark grey to red-brown or bronze. Branchlets pruinose. *Juvenile leaves* disjunct, lanceolate to broad-lanceolate, dull, grey, petiolate. *Adult leaves* disjunct, lanceolate, glossy, with a distinct bluish sheen from the large, translucent stomata, 4–10 cm long, 7–19 mm wide; pedicels flattened, 6–16 mm long; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. *Inflorescences* simple, axillary; umbellasters 7–11-flowered; peduncles terete or narrowly flattened; 17–30 mm long, to 3 mm wide; pedicels 4–10 mm long. *Buds* cylindrical, 18–35 mm long, 5–7 mm diam.; calyptra 2.5 or more times longer than hypanthium, cylindrical, apically rounded. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical, 8–11 mm long, 7–10 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. *Seeds* ovoid, somewhat flattened, grey-brown, regularly shallowly reticulate. Figure 12.

Distinguished within the *E. eremophila* group by the pruinose branchlets and the small fruits. The related *E. incerata* Brooker & Hopper ined. (another member of the *E. eremophila* group) shares the bronze or coppery bark and glaucous branchlets, but has larger buds and fruits (buds 6–8 mm diam., fruits 10–14 mm long), and tends to be heavily rather than lightly pruinose. The two taxa also show a replacement distribution.

Distribution: Sporadic and scattered in the area between Quairading, Southern Cross, Kukerin and Hyden (Avon and Roe Districts). This is now all largely cleared agricultural country. Figure 13.

Ecology: Restricted to local mallee scrubs on usually shallow and sandy soils, over various substrates in otherwise woodland country.

Hybrids are recorded with *E. cylindriflora* Maiden & Blakely and *E. erythronema*.

Conservation status: 3V?C. The habitat has been seriously reduced by agricultural clearing.

The epithet is from the Greek *tephros*, ash-grey, and *klados*, a twig, referring to the pruinose branchlets.

Selected specimens (from 19 examined): Western Australia (N to S): c. 5 miles [8 km] E of Bodallin, *Johnson W 130*, 16 Dec 1960 (NSW); 3 km W of Hyden, *Strid 21940*, 31 Dec 1982 (NSW); 6 km NW of Jitarning, *Foreman 1139*, 21 Nov 1985 (MEL, AD, CANB, NSW, PERTH); Harrismith, *Gardner 2118*, 6 Mar 1924 (PERTH, NSW).

E. cylindriflora* x *E. tephroclada: 22 km SE of Pingaring, *Haegi 1083*, 21 Sep 1976 (AD, NSW, PERTH).

E. erythronema* x *E. tephroclada: Noongar, *Chippendale 286*, 13 Aug 1967 (CANB, NSW).

14. Eucalyptus depauperata *L. Johnson & K. Hill*, sp. nov.

Inter species affinitatis *E. eremophilae* combinatione sequenti characterum distinguitur: habitus pluricaulis et fruticosus; folia adulta, alabastra et fructus minores.

Type: Western Australia: 1.6 km N of Hayes Road on North Road, *K.D. Hill 3027*, 1 Aug 1988 (holo NSW; iso CANB, PERTH).

[*Eucalyptus* sp. E of Brooker & Kleinig (1990)]

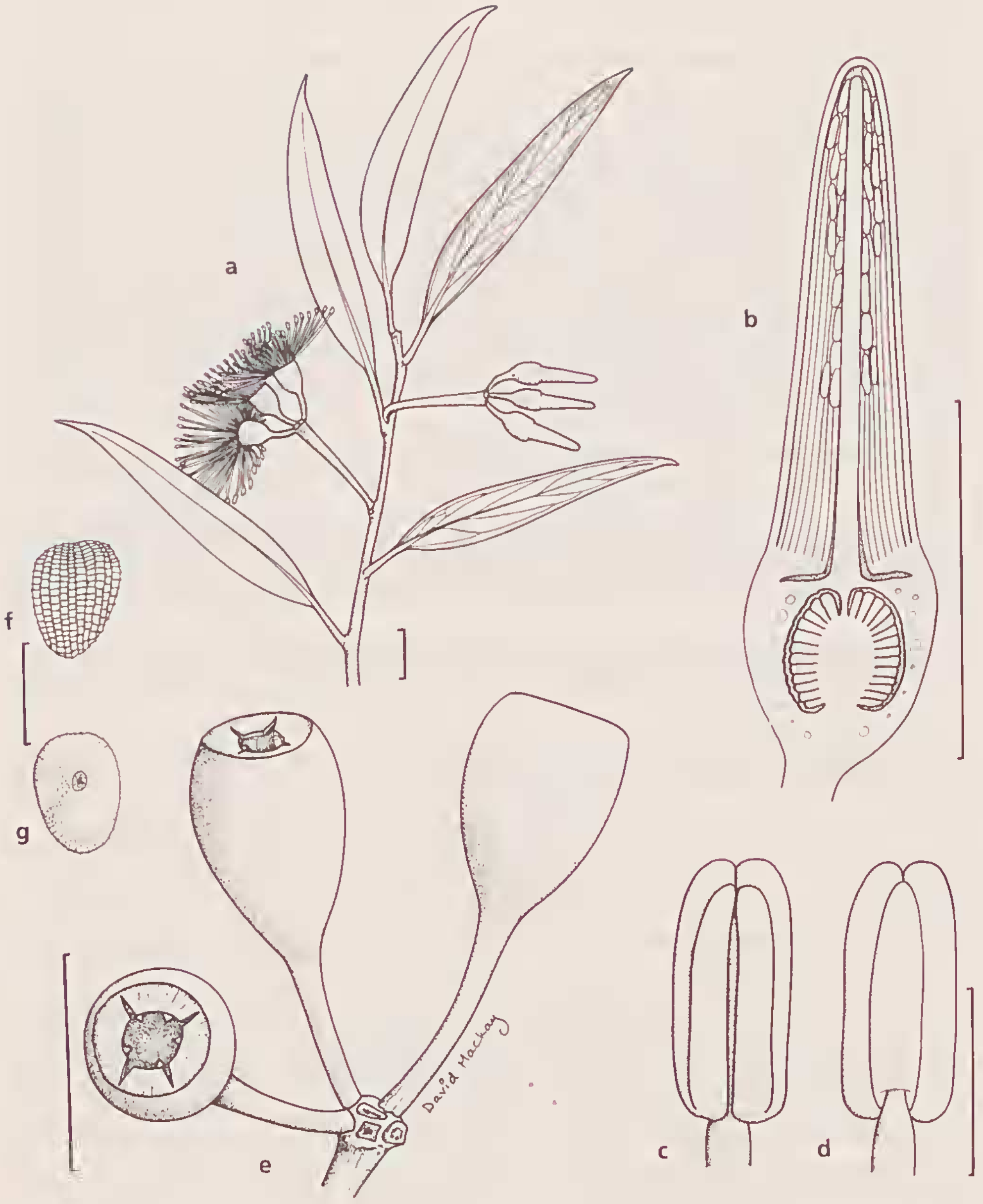

Figure 12. *E. tephroclada*. **a**, adult leaves, flowers and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits; **f**, **g**, seed (all from *Strid 21940*). Scale bar: a, b, e = 1 cm; c, d, f, g = 1 mm.

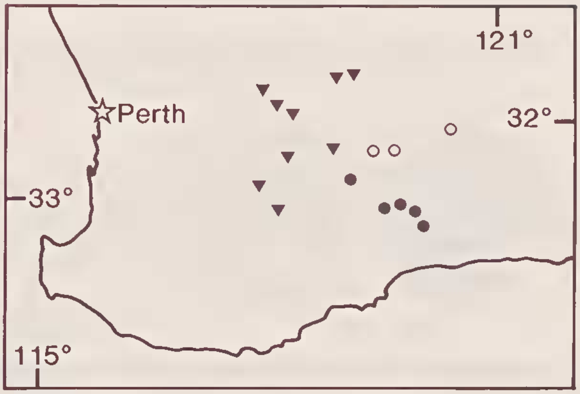

Figure 13. Distribution of *E. tephroclada* (▼), *E. incerata* (○) and *E. depauperata* (●).

Mallee to 4 m. *Bark* smooth, semiglossy, pale grey or silver to pale brown. *Juvenile leaves* disjunct, lanceolate. *Adult leaves* disjunct, narrow-lanceolate to lanceolate, glossy, often with a distinct bluish sheen from the large, translucent stomata, 3–7 cm long, 5–12 mm wide; petioles 8–11 mm long; lateral veins scattered; reticulation sparse, incomplete; oil glands crowded, spherical. Inflorescences simple, axillary; umbellasters 7-flowered; peduncles 8–25 mm long; pedicels 3–5 mm long. *Buds* cylindrical, 16–21 mm long, 5–6 mm diam.; calyptra 2.5 times or more longer than hypanthium, cylindrical, apically rounded. *Stamens* all fertile; filaments erect; anthers oblong, dorsifixed, dehiscing through parallel slits. *Fruits* ovoid to obconical, 8–10 mm long, 6–8 mm diam.; stemonophore broad, flat, persistent; disc flat; valves acicular, basally enclosed, apically exserted. *Seeds* ovoid, somewhat flattened, grey-brown, regularly shallowly reticulate. Figure 14.

Distinguished within the *E. eremophila* group by the small leaves, buds and fruits. It is also usually a small, slender 'whipstick' mallee in contrast to the more robust habit of other members of the *E. eremophila* complex.

DISTRIBUTION: Locally frequent in the area around Lake King, extending northwest towards Pingaring (Roe District). Figure 13.

ECOLOGY: Occurs in mixed mallee shrublands, on lateritic sand or sandy loam.

Hybrids are recorded with *E. grossa* F. Muell. ex Benth. and *E. suggrandis* subsp. *alipes*.

CONSERVATION STATUS: 2R. Substantial populations occur in relatively undeveloped country. Future development could, however, threaten this species.

The epithet is from the mediaeval Latin *depauperatus*, made poor, referring to the generally smaller parts and lower stature than those of *E. eremophila* and its other close allies.

SELECTED SPECIMENS (from 7 examined): WESTERN AUSTRALIA (W to E): 4.2 km S of Varley Road on track to Dragon Rock, *Hill 2469, Johnson & Blaxell*, 14 Nov 1986 (NSW, PERTH); 52 km N of Ravensthorpe on Hatters Hill Road, *Hill 319, Johnson & Blaxell*, 22 Oct 1983 (NSW); 13.6 km S of Lake King–Norseman road on Hatters Hill Road, *Brooker 8177*, 7 June 1983 (CANB, NSW, PERTH); 4.5 km W of rabbit-proof fence east of Lake King, *Brooker 8848*, 12 Feb 1985 (CANB, NSW, PERTH).

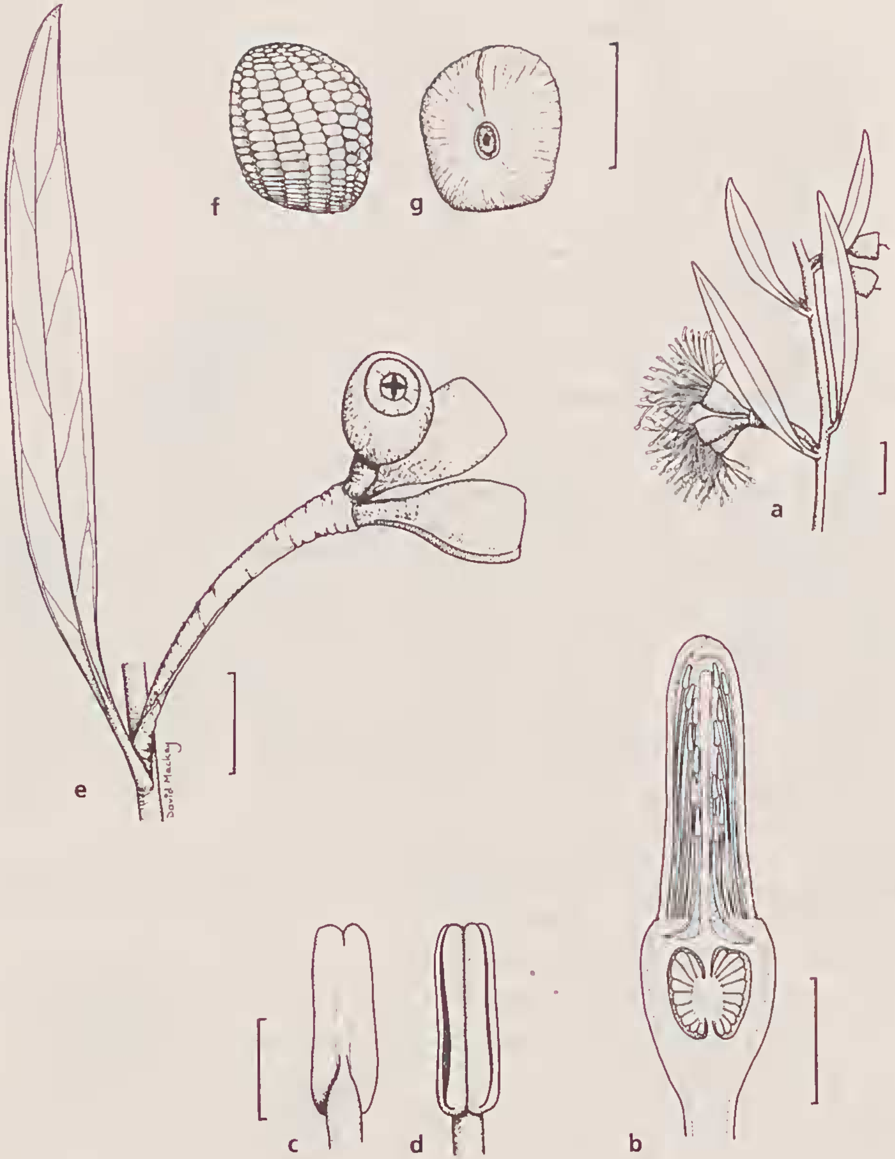

Figure 14. *E. depauperata*. **a**, adult leaves and flowers; **b**, section of bud; **c**, **d**, anther; **e**, adult leaf and fruits; **f**, **g**, seed (**a**, c, **d**, **e**, **f**, g from *Hill 319*, *Johnson & Blaxell*, **b** from *Brooker 8177*). Scale bar: a, e = 1 cm; b = 5 mm; c, d, f, g = 1 mm.

***E. depauperata* x *E. grossa*:** 17.7 km W of Lake King, *Hill 2391, Johnson, Blaxell & Brooker*, 9 Nov 1986 (NSW).

***E. depauperata* x *E. suggrandis* subsp. *alipes*:** 13.6 km S of Lake King–Norseman road on Hatters Hill Road, *Brooker 8177*, 7 June 1983 (CANB, NSW, PERTH).

Series *Cneorifoliae*

Species 15 to 19 are placed in series *Cneorifoliae*, defined by the combination: pith glands absent; filaments inflexed or irregularly flexed; anthers globoid to reniform, basifixed, subversatile, dehiscing by broad, angled slits; seeds shallowly reticulately pitted, dorsiventrally compressed.

15. Eucalyptus phylacis *L. Johnson & K. Hill*, **sp. nov.**

Affinis *E. decipienti* sed inter affinitatem illae combinatione sequenti characterum distinguitur: folia lanceolata; alabastra mediocria, ovoidea et non constricta; calyptra hypanthium aequans, conica; stylus brevis, rectus; fructus breviter pedicellati; pedunculus longus.

Type: Western Australia: Meelup, east side of Cape Naturaliste (33°35′S, 115°01′E), *D.F. Blaxell 2000, L.A.S. Johnson & M.I.H. Brooker*, 31 May 1983 (holo NSW; iso CANB, K, PERTH).

[*Eucalyptus* sp. K of Brooker & Kleinig (1990)]

Tree to 5 m. *Bark* persistent on trunk and large branches, rough, coarsely flaky, light grey-brown; outer branches smooth. *Juvenile leaves* disjunct, blue-grey, ovate to orbicular, to 5 cm long, 4 cm wide. *Adult leaves* disjunct, lanceolate to broad lanceolate, acute or acuminate, falcate, dull, 6–13 cm long, 11–30 mm wide; petioles channelled above, 7–16 mm long; lateral veins at 30–45° to midrib, ± closely spaced, regular, densely reticulate between; intramarginal vein distinct, 0.5–1.5 mm from margin. *Umbellasters* axillary, 7–11-flowered; peduncles terete, 7–11 mm long; pedicels terete, 1–2 mm long. *Mature buds* ovoid, 8–10 mm long, 4–5 mm diam.; calyptra conical, convex, obtuse, ± as long as hypanthium. *Fruits* cup-shaped or hemispherical, 3–4-locular, 5–7 mm long, 7–9 mm diam.; calyptra scar raised, angled incurved at c. 45°, c. 0.5 mm wide; disc ± flat, convex, 1.5–2.0 mm wide (with distinctive radial cracks crossing disc, scar and hypanthium caused by subsequent internal growth of fruit); style persistent, frequently remaining attached to one valve in open fruits; valves enclosed at base, vertically exserted, triangular. Figure 15.

Distinguished within the *E. decipiens* Endl. group by the following combination of characters: Juvenile leaves obtuse to rounded (not emarginate); adult leaves lanceolate; buds medium to large (8 mm long, 5 mm diam.), ovoid, not constricted; calyptra about as long as hypanthium, conical, convex; style short, straight, tip shallowly engaged in calyptra; fruits pedicellate (pedicel 1–2 mm long); peduncle to 12 mm long. The widespread *E. decipiens* is distinguished by the emarginate juvenile leaves, and the apparently closely related rare species *E. balanites* Grayling & Brooker ined. is distinguished by the rounded calyptra which is narrower than the hypanthium, and the larger buds (to 10 mm long).

Distribution: Discovered by Dr Neville Marchant of the Western Australian Herbarium, *E. phylacis* is known only from a single population in the Cape Naturaliste area in the far south-west (Menzies District). Figure 16.

Ecology: Localised and not frequent, in a patch of mallee-heath country on undulating laterite, in an open area in otherwise *E. calophylla* Lindley – *E. marginata* Sm. woodland.

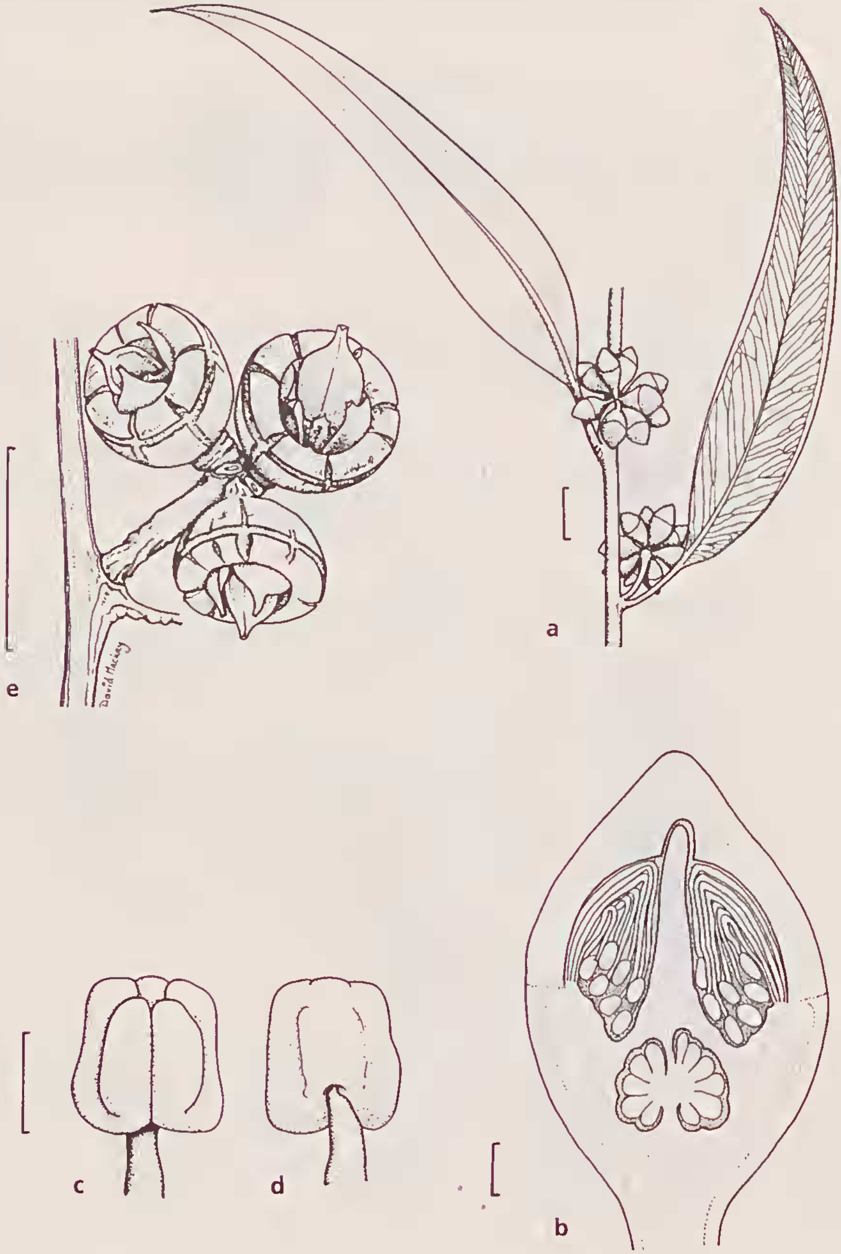

Figure 15. *E. phylacis*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits (all from *Blaxell 2000*). Scale bar: a, e = 1 cm; b = 1 mm; c, d = 0.5 mm.

CONSERVATION STATUS: 2V-. Known only from the type area, where the population has already been damaged by roadworks.

The specific epithet is from the Greek *phylakis*, a watcher or guard (female), referring to its occurrence on a hill overlooking the ocean. The feminine word (masculine equivalent *phylax*) is chosen to agree with the gender of *Eucalyptus*, but the word is a noun and not subject to change with a change of generic association. The 'y' is short as in 'lyrical', the stress is on the first syllable, and the 'c' is soft in modern usage.

SELECTED SPECIMENS (from 7 examined): WESTERN AUSTRALIA (N to S): 2 km S of Meelup, *Hill 3074 A*, 4 Sep 1988 (NSW); 0.9 km from Cape Naturaliste road on Meelup road, *Johnson 9133 & B. Briggs*, 26 Oct 1988 (NSW, CANB); hilltop 2 km S of Meelup Beach, *Marchant 84/102*, 14 Nov 1984 (PERTH, NSW).

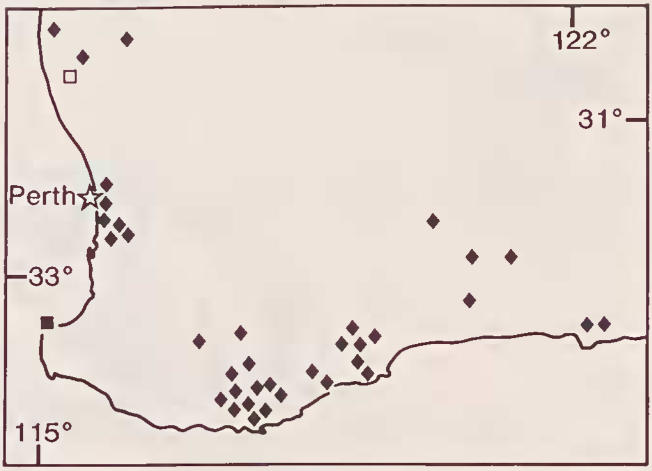

Figure 16. Distribution of *E. phylacis* (■), *E. balanites* (□), *E. decipiens* (◆).

16. Eucalyptus misella *L. Johnson & K. Hill*, sp. nov.

Affinis *E. angustissimae* sed characteribus sequentibus distinguitur: folia adulta latiora, non nitida et faciebus similioribus; folia juvenilia latiora; fructus obconici in pedunculis pedicellisque longioribus crassioribusque; calyptra brevior, plus rotundata et quam hypanthio angustior.

TYPE: WESTERN AUSTRALIA: 11.9 km N of Rollands Road along Fields Road North, W of Grasspatch (33°08'S, 121°11'E), *K.D. Hill 302, L.A.S. Johnson & D.F. Blaxell*, 22 Oct 1983 (holo NSW; iso CANB, K, PERTH).

[*Eucalyptus* sp. L of Brooker & Kleinig (1990)]

Mallee to 2.5 m, often less. *Foliage* dense, extending to ground. *Bark* smooth throughout, dull, grey. *Seedling leaves* opposite for 5–6 nodes, linear, ± sessile. *Juvenile leaves* disjunct, lanceolate, ± sessile, to 5 mm wide. *Adult leaves* disjunct, similifacial, lanceolate to broad-lanceolate, dull, bluish, 5–9 cm long, 8–16 mm wide; petioles to 8 mm long, broad, flattened; lateral veins moderately spaced, ± regular, at 40°–50° to midrib; oil glands large, ± dense; intramarginal vein ± obscure, 0.5–1.0 mm from margin. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles terete, thick, 3–5 mm long, to 3 mm thick; pedicels thick, angular, 2 mm long, tapering into hypanthium. *Mature buds* ovoid, 5–7 mm long, 4–5 mm diam.; calyptra hemispherical or

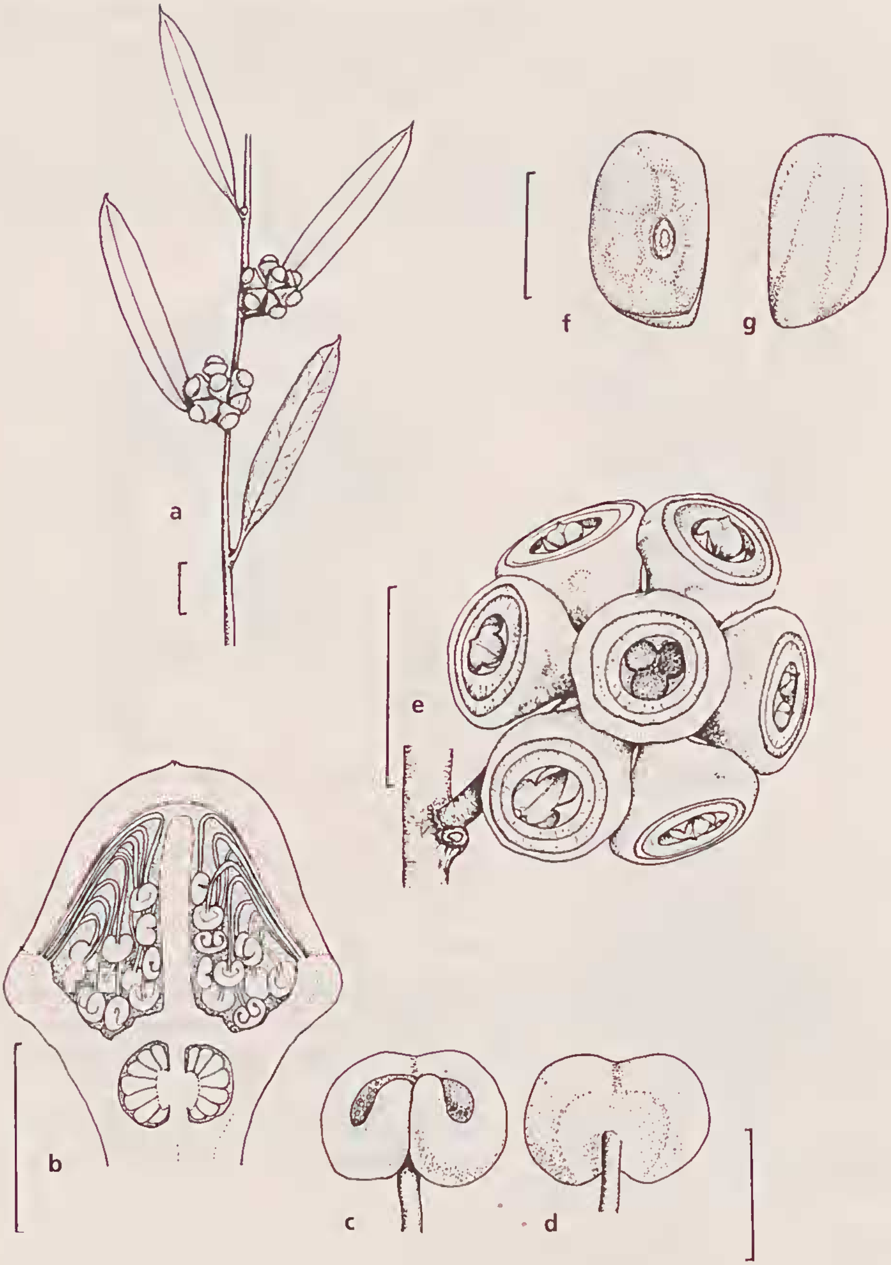

Figure 17. *E. misella*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits; **f**, **g**, seed (all from *Hill 302*, *Johnson & Blaxell*). Scale bar: a, e = 1 cm; b = 3 mm; f, g = 1 mm; c, d = 0.5 mm.

slightly higher, sometimes finely apiculate, about as long as hypanthium, distinctly narrower than hypanthium. *Fruits* broadly obconical to almost cup-shaped, usually 3-locular, 5–6 mm long, 6–8 mm diam.; calyptra scar flat, c. 0.2 mm wide; stemonophore expanded by tissue expansion within the hypanthium after flowering, flat, 0.5–1.0 mm wide; disc flat, 0.5–1.0 mm wide; valves broadly triangular, obtuse, apically rim level, flat, with small dorsal protuberances. *Seeds* semiglossy, pale red-brown, flattened, elliptic, regularly very shallowly reticulate (almost smooth); hilum ventral; chaff similar. Figure 17.

E. misella differs from *E. angustissima* F. Muell. in the broader, dull, more similifacial adult leaves, the broader juvenile leaves, the generally larger, obconical fruits on longer, thicker peduncles and pedicels, and the shorter, more rounded calyptra that is distinctly narrower than the hypanthium. The very similar *E. foliosa* (below) has greener, narrower leaves and slightly more delicate fruits than *E. misella*, and occurs in a quite different habitat, viz. on saline samphire flats.

DISTRIBUTION: Known only from a small area west of Grasspatch in the Esperance district. Figure 18.

ECOLOGY: Locally abundant in flat, low-lying grey or white sand-plain heath country, with *Eucalyptus tetragona* (R. Br.) F. Muell., *Eucalyptus uncinata* Turcz., *E. incrassata* Labill. (sens. lat.), *E. leptocalyx* Blakely, *E. perangusta* Brooker, *E. dolichorhyncha* (Brooker) Brooker & Hopper ined. and *E. tumida* Brooker & Hopper.

CONSERVATION STATUS: 2R.

The epithet is from the Latin *misellus*, wretched, in reference to the often low growth of this species.

SELECTED SPECIMEN (from 5 examined): WESTERN AUSTRALIA: 12.3 km N from Rollands Road on Fields Road North, *Hill 2309, Johnson & Blaxell*, 7 Nov 1986 (NSW).

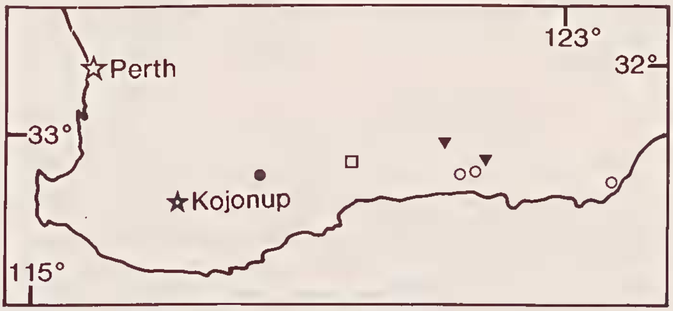

Figure 18. Distribution of *E. misella* (▼), *E. angustissima* subsp. *angustissima* (○), subsp. *quaerenda* (●) and intergrades between the two subspecies (□).

17. Eucalyptus foliosa *L. Johnson & K. Hill*, sp. nov.

Affinis et simillima *E. misellae* sed characteribus sequentibus et habitatione distincta distinguitur: folia adulta angustiora, virides et aliquanto nitentiores; fructus aliquanto minores in pedicellis gracilioribus; statura saepissime major.

Type: Western Australia: 2 km W of Norseman–Esperance road on Griffiths Road (33°29′S, 121°44′E), *K.D. Hill 2299, L.A.S. Johnson, M.I.H. Brooker & D.F. Blaxell*, 7 Nov 1986 (holo NSW; iso CANB, MEL, PERTH).

Mallee to 4 m. *Foliage* dense, extending to ground. *Bark* smooth throughout, dull, grey. Seedling leaves opposite for 5–6 nodes, linear, ± sessile. *Adult leaves* disjunct, narrow-lanceolate, green, semiglossy, 4–8 cm long, 5–10 mm wide; petioles to 10 mm long, broad, flattened; lateral veins moderately spaced, ± regular, at 30°–50° to midrib; oil glands large, ± dense; intramarginal vein ± conspicuous, 0.5–1.0 mm from margin. Inflorescences simple, axillary; umbellasters 7-flowered; peduncles terete, 2–5 mm long, to 2 mm thick; pedicels angular, 2 mm long, 1.5 mm thick, tapering into hypanthium. *Mature buds* ovoid, 5–7 mm long, 4–5 mm diam.; calyptra hemispherical or slightly longer, often broadly pointed, about as long as hypanthium, distinctly narrower than hypanthium. *Fruits* broadly obconical to almost cup-shaped, usually 3-locular, 5–6 mm long, 6–7 mm diam.; calyptra scar flat, c. 0.2 mm wide; stemonophore slightly expanded by post-flowering growth within the hypanthium, flat or slightly raised, to 0.5 mm wide; disc flat or slightly raised, 0.5–1.0 mm wide; valves broadly triangular, obtuse, apically rim level, flat, with small dorsal protuberances. *Seeds* semiglossy, pale red-brown, flattened, elliptic, regularly very shallowly reticulate (almost smooth); hilum ventral; chaff similar. Figure 19.

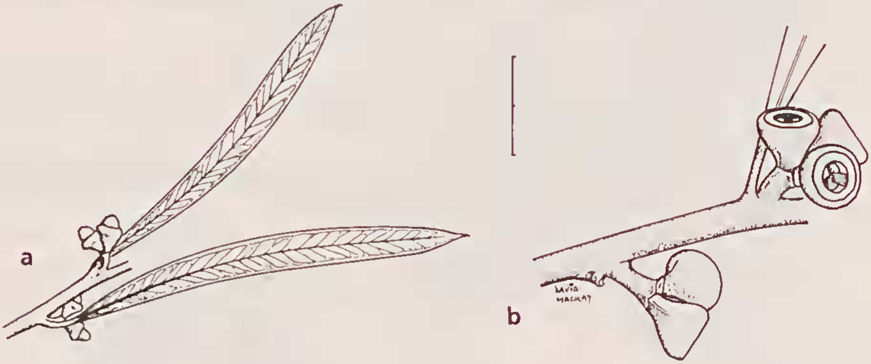

Figure 19. *E. foliosa*. **a**, adult leaves and buds; **b**, fruits (all from *Hill 2299, Johnson, Blaxell & Brooker*). Scale bar = 1 cm.

E. foliosa differs from *E. misella* in the narrower, green and somewhat glossier adult leaves, and the slightly smaller fruits on more slender peduncles. *E. foliosa* also frequently grows taller. Both taxa differ from *E. angustissima* in the broader, more similifacial leaves, the larger buds and fruits, and the distinctly constricted buds.

Distribution: This species is known only from a small area around Scaddan and Gibson, north of Esperance.

Ecology: Locally abundant on often wet and saline low-lying grey or white sandy flats adjacent to salt lakes, with *E. rigens* Brooker, *E. uncinata* Turcz., *E. halophila* D. Carr & S. Carr, and samphires.

Conservation status: 2R.

The epithet is from the Latin *foliosus*, leafy, referring to the dense and often deep leafy crown.

Selected specimens (from 6 examined): Western Australia (W to E): 2.0 km N of Gibsons Soak on highway, *Hill 2293, Johnson , Blaxell & Brooker*, 7 Nov 1986 (NSW); 6.7 km E of Highway on Scaddan Road, *Hill 2302, Johnson, Blaxell & Brooker*, 7 Nov 1986 (NSW).

18. Eucalyptus angustissima *F. Muell.*, Fragm. 4: 25 (1863).

Type citation: 'Inter promontoria Point Malcolm et Point Dover. Mxw.'

Type: Western Australia: between Point Malcolm and Point Dover, *G. Maxwell* (holo MEL; iso K).

Mallee to 4 m. *Bark* smooth, dull, pale grey or cream, shedding in partly adherent sheets. *Juvenile leaves* opposite, becoming disjunct, linear to narrow-lanceolate, grey. *Adult leaves* disjunct, linear to narrow-lanceolate, 4.5–13 cm long, 2–7 mm wide; petioles 2–5 mm long; lateral veins obscure; oil glands densely packed, spherical. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles terete or angular, 1–4 mm long; pedicels 1–2 mm long. *Buds* ovoid, 4–6 mm long, 3–5 mm diam.; calyptra as long as hypanthium, hemispherical, apiculate, narrower than hypanthium. *Stamens* all fertile; filaments regularly inflexed; anthers basifixed, subversatile, flattened globoid, dehiscing through short, angled slits. *Fruits* hemispherical to broadly obconical, 3–4-locular, 4–7 mm long, 5–8 mm diam.; calyptra scar flat, c. 0.2 mm wide; stemonophore slightly expanded, flat or slightly raised, to 0.5 mm wide; disc flat or slightly raised, 0.5–1.0 mm wide; valves broadly triangular, obtuse, apically rim level, flat, with small dorsal protuberances. *Seeds* semiglossy, pale red-brown, flattened, elliptic, regularly very shallowly pitted and grooved (almost smooth); hilum ventral; chaff similar.

This taxon is readily distinguished within section *Cneorifoliae* by the extremely narrow adult leaves.

Locally frequent on saline flats in low areas.

Two subspecies are recognised on regional differences in leaf width.

1 Adult leaves less than 3 mm wide .... **18a.** **subsp. angustissima**

1* Adult leaves more than 4 mm wide .... **18b.** **subsp. quaerenda**

18a. Eucalyptus angustissima *F. Muell.* subsp. angustissima

Adult leaves linear, 7–13 cm long, 2–3 mm wide. *Buds* 5–6 mm long, 4–5 mm diam. *Fruits* 5–7 mm long, 5–8 mm diam. Figure 20.

Distribution: Two disjunct occurrences are known, one north of Esperance and west of the Scaddan–Grasspatch area, and one near Israelite Bay (Eyre District). Figure 18.

Ecology: This taxon has a patchy and sporadic distribution, forming open shrublands with *Melaleuca* spp. and with grass and sedge understorey on saline flats and around saltpans.

Conservation status: 3RC (Briggs & Leigh 1988: 118).

Selected specimens (from 11 examined): Western Australia (W to E): 4.8 km N from end of made road on Fields Road North (33°04'30"S 121°12'E), *Brooker 9528*, 8 Nov 1986 (CANB, NSW, PERTH); 16.1 km W of highway on Speddingup Road West (Dalyup River), *Hill 2296, Johnson, Blaxell & Brooker*, 7 Nov 1986 (NSW, PERTH); 10 km SW of Israelite Bay on track, *Crisp 4898*, 7 Jan 1979 (CBG, CANB, NSW, PERTH).

18b. Eucalyptus angustissima *F. Muell.* **subsp. quaerenda** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie typica foliis adultis brevioribus et latioribus etiam planis, alabastris fructibusque minoribus et hypanthio conico praesertim in fructibus differt.

Type: Western Australia: 100 metres S of the south shore of Lake Chinokup, *K.D. Hill 2460, L.A.S. Johnson & D.F. Blaxell*, 13 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

Adult leaves linear to narrow-lanceolate, 4.5–9 cm long, 4–7 mm wide. *Buds* 4–5 mm long, 3–4 mm diam. *Fruits* 4–6 mm long, 5–7 mm diam. Figure 20.

Subspecies *quaerenda* differs from subspecies *angustissima* in the shorter, broader, flat adult leaves, the smaller buds and fruits and the conical hypanthium (especially in fruits).

Distribution: The type form is at present known from the type area only, around the southern and western edges of Lake Chinokup (Figure 18). An early collection by Muir is cited from 'towards the Tone River', the exact locality for which is obscure. It seems unlikely that a member of this group would occur in the wetter country where the Tone River joins the Warren River. The Tone River rises to the northeast near Kojonup, in country approaching a more likely range of habitats. This area has suffered widespread and thorough devastation of native flora during the development of the wheat-farming industry, and this subspecies may have suffered severe reduction of range.

Ecology: A taxon of sand-plain heath on poorly drained, somewhat saline substrates.

Intergrading populations occur with subsp. *angustissima* in country north of Ravensthorpe.

Conservation status: 2V-. Known at present only from around the southern and western shore of Lake Chinokup.

The epithet is from the Latin *quaerendus*, to be sought, applied first at a stage in our investigations when only the early Muir collection was known, but still apt since there are few known localities.

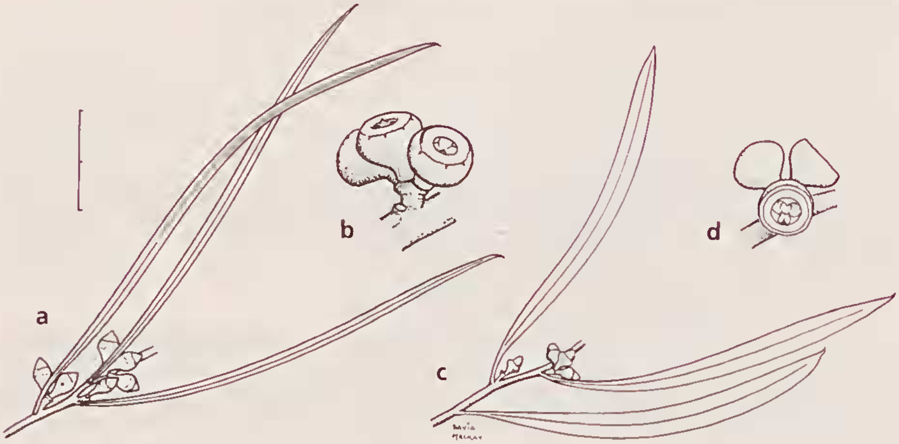

Figure 20. *E. angustissima* subsp. *angustissima*. **a**, adult leaves and buds; **b**, fruits (all from *Hill 2296 et al.*). Subsp. *quaerenda*. **c**, adult leaves and buds; **d**, fruits (all from *Hill 2460 et al.*).

Selected specimens (from 4 examined): Western Australia (W to E): towards the Tone River, *Muir*, 1880 (NSW, MEL); 8.7 km N of Katanning–Pingrup road on Chinocup Road, *Brooker 9566*, 27 Jan 1987 (CANB, NSW, PERTH).

Intergrades between subspecies (from 3 examined): Western Australia: 3.1 km from highway on Fitzgerald Road, *Brooker 8807*, 18 Jan 1985 (CANB, NSW, PERTH).

19. Eucalyptus mannensis *Boomsma*, Trans. & Proc. Roy. Soc. South Australia 88: 115, pl. 1, Figure 1 (1964).

Type citation: 'Holotypus – Northern Territory, 20.3 miles north of Angas Downs Head Station, 15.x.1957, G. Chippendale and L. Johnson 3986 (AD 95951147). Isotypes in N.T., N.S.W., Canb., Bri., Melb., N.E.K., Perth. [sic]'

Mallee to 7 m, often less, sometimes small tree to 8 m. *Bark* persistent, fibrous-flaky on lower stems, smooth above, grey, cream or pinkish red. *Juvenile leaves* disjunct, lanceolate, dull, grey-green, petiolate, 5–10 cm long, 10–25 mm wide. *Adult leaves* disjunct, lanceolate, acuminate, glossy, with abundant oil glands (oil glands black in dried leaves), 6–15 cm long, 8–19 mm wide; petioles 9–17 mm long; lateral veins moderately closely-spaced, at c. 45° to midrib; reticulum close; oil glands abundant; intramarginal vein distinct, within 1 mm of margin. *Umbellasters* axillary, 7- to 11-flowered; peduncles terete, 2–13 mm long; pedicels terete, 1–5 mm long. *Mature buds* ovoid, sometimes elongate, 5–9 mm long, 3–5 mm diam.; calyptra rounded, obtuse or acute, 1–2 times as long as hypanthium. *Stamens* all fertile, outer whorls erect, inner whorls inflexed in bud; anthers subglobular, dorsifixed (attached very low on connective), subversatile, dehiscing by short angled slits. *Fruits* cup-shaped, verrucose, 3-locular, 4–7 mm long, 5–9 mm diam.; calyptra scar and stemonophore distinct, 0.25–0.5 mm wide, flat or slightly raised; disc 1–1.5 mm wide, flat or shallowly depressed; valves triangular, enclosed at bases, vertically raised, each with two dorsal lobes formed from outgrowths from the disc, tips often exserted; style sometimes persistent, remaining attached to one valve in open fruits. *Seeds* flattened-ovoid, dull, dark brown, very shallowly regularly pitted, c. 1 mm long; hilum ventral; chaff paler, smaller, linear or blocky.

The closest affinity of *E. mannensis* is with *E. jutsonii* Maiden, and not with the *E. foecunda* group as supposed by Boomsma in the protologue. *E. jutsonii* is distinguished by the linear adult and juvenile leaves.

Two groups of populations are recognised but as subspecies only, despite the lack of intergrades, since the differences are slight.

1 Adult leaves always glossy, largest leaves usually more than 12 mm wide .... **19a.** subsp. **mannensis**

1* Adult leaves dull on new growth, largest leaves less than 12 mm wide .... **19b.** subsp. **vespertina**

19a. Eucalyptus mannensis *Boomsma* subsp. **mannensis**

Adult leaves lanceolate, glossy, 6–15 cm long, 11–19 mm wide. *Peduncles* terete, 5–13 mm long. *Mature buds* 5–9 mm long, 3–4 mm diam. *Fruits* 4–7 mm long, 5–9 mm diam.

Distribution: A taxon of the semidesert country, from the western and south-western edges of the Great Victoria Desert (Wiluna to north of Zanthus) east to north-western South Australia and south-western Northern Territory, to south of Alice Springs. Figure 21.

Ecology: Widespread but sporadic on deep sand on red aeolian desert dunes.

Conservation status: Not considered to be at risk.

Selected specimens (from 40 examined): Western Australia (W to E): 29 miles [46 km] S of Wiluna on Sandstone road, *Speck 1452*, 16 Sep 1958 (CANB, NSW); 4.4 km N of Mulga Rock on Lake Minigwal track, *Hill 2670 & Johnson*, 29 Nov 1986 (NSW, PERTH); c. 26 km SE of Giles Meteorological Station, *Lazarides 8322*, 9 May 1977 (CANB, NSW). South Australia: Mann Range, 39 miles [62 km] NE of Mt Davies camp, *Dunlop 2017*, 1 Nov 1970 (DNA, NSW). Northern Territory (W to E): 7 miles [11 km] N of Lake Amadeus, *Chippendale NT 6360*, 28 June 1959 (DNA, NSW); 28.6 km E of Curtin Springs, *Hill 856, Johnson & Benson*, 10 July 1984 (NSW); 50 miles [80 km] S of Tempe Downs, *Forde 186*, 16 June 1956 (DNA, NSW); 116 km N of Kulgera, *Brooker 9438*, 30 Aug 1986 (CANB, NSW); Deep Well road, 34 miles [54 km] S of Alice Springs, *Nelson 1855*, 19 Mar 1969 (DNA, NSW).

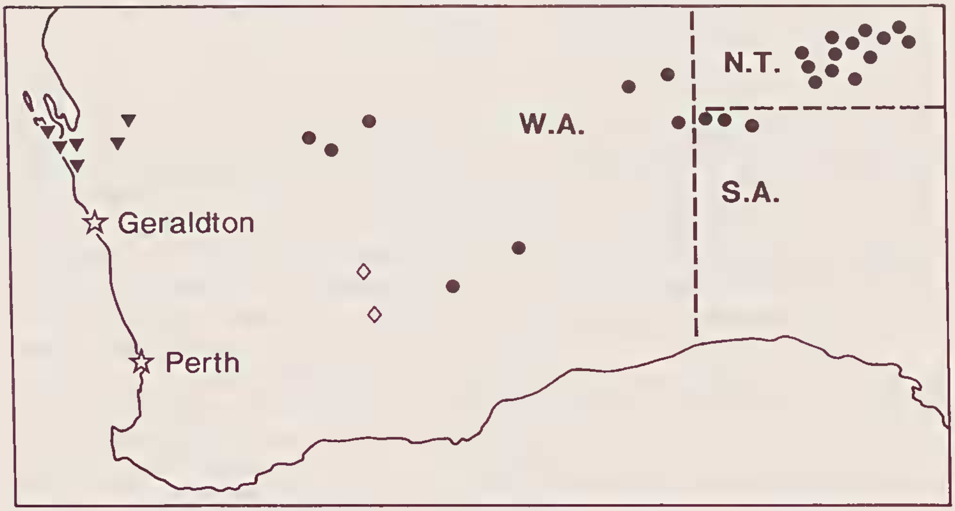

Figure 21. Distribution of *E. mannensis* subsp. *mannensis* (●), subsp. *vespertina* (▼) and *E. jutsonii* (◇).

19b. Eucalyptus mannensis *Boomsma* **subsp. vespertina** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie typica foliis adultis non nitentibus eis maximis plerumque angustioribus differt.

Type: Western Australia: 12 km W of road from 'Coburn' to 'Hamelin', *D.F. Blaxell W75/101 & M.I.H. Brooker*, 8 Oct 1975 (holo NSW; iso CANB, PERTH).

Adult leaves narrow-lanceolate to lanceolate, dull, 7–12 cm long, 8–12 mm wide. *Peduncles* terete, 2–8 mm long. *Fruits* 5–6 mm long, 6–8 mm diam. Figure 22.

Distribution: Known only from the Shark Bay area. Figure 21.

Ecology: A locally common mallee in red sandhill country.

Subsp. *vespertina* differs from subsp. *mannensis* in the duller and narrower adult leaves.

Subsp. 'western' of Brooker & Kleinig (1990).

Conservation status: Not considered to be at risk.

The epithet is from the Latin *vespertinus*, belonging to the evening or western, in allusion to the subspecies' more westerly distribution.

Selected specimens (from 15 examined): Western Australia (W to E): 5 miles [8 km] from Shark Bay road towards Tamala, *Brooker 2394*, 10 Jan 1970 (PERTH, NSW); 6 km N of Wannoo, *Blaxell W75/96 & Brooker*, 8 Oct 1975 (NSW, CANB, PERTH); 65 km S of Wannoo, *Beadle 170*, 2 Oct 1970 (UNE, NSW).

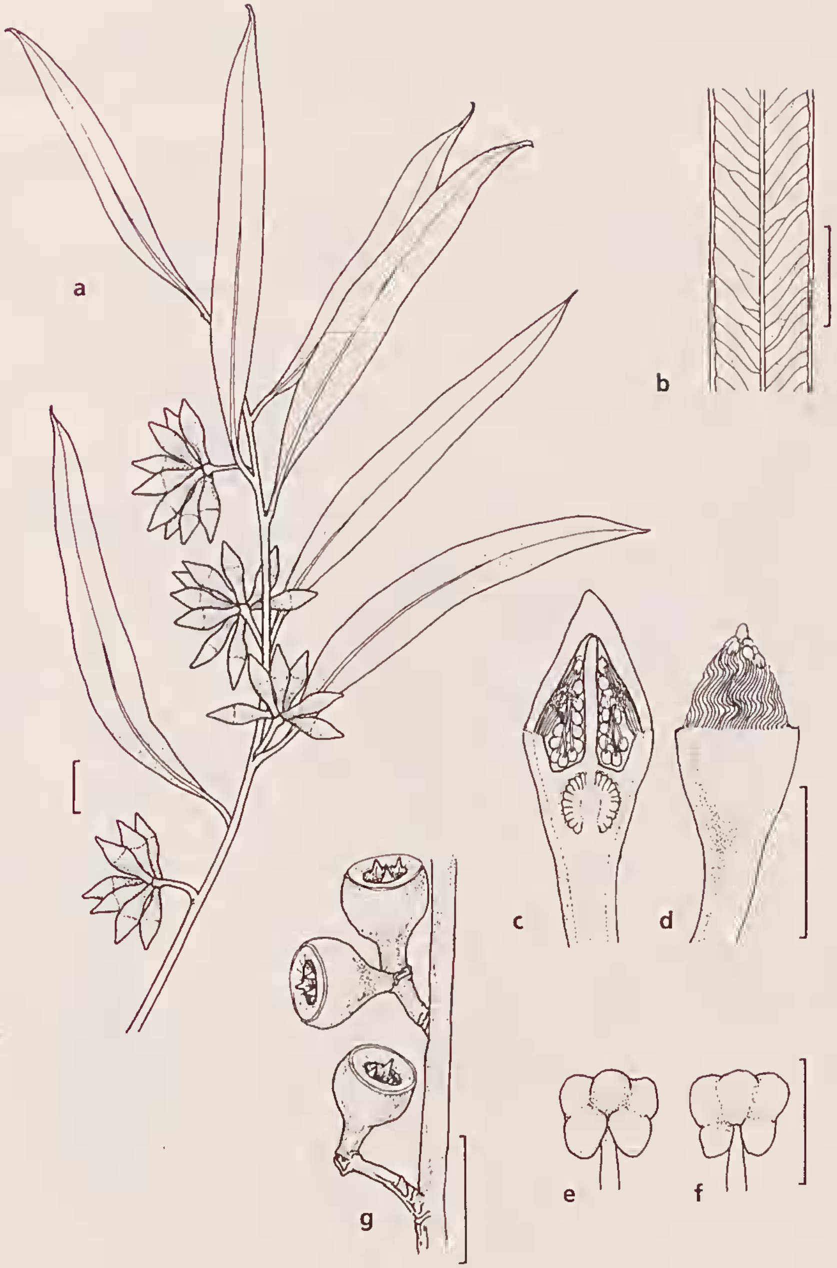

Figure 22. *E. mannensis* subsp. *vespertina*. a, adult leaves and buds; **b**, part of adult leaf showing venation; c, section of bud; **d**, bud with calyptra removed, showing filament flexure; **e**, **f**, anther; g, fruits (all from *Blaxell W75/101*). Scale bar: a, b, g = 1 cm; c, d = 5 mm; e, f = 0.5 mm.

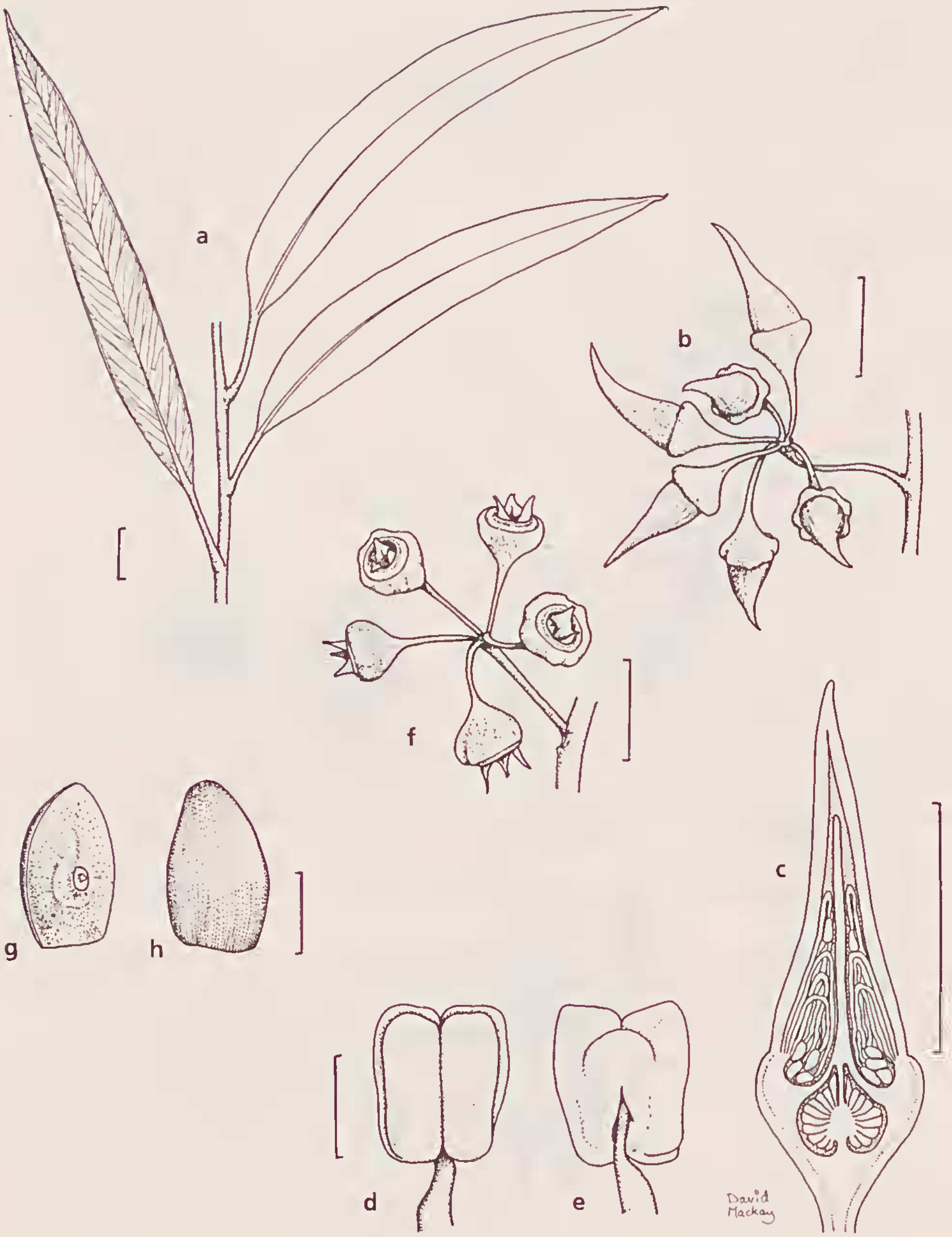

Figure 23. *E. argyphea*. **a**, adult leaves; **b**, buds; **c**, section of bud; **d**, **e**, anther; **f**, fruits; **g**, **h**, seed (all from *Hill 659 et al.*). Scale bar: a, b, c, f = 1 cm; g, h = 1 mm; d, e = 0.5 mm.

Series *Falcatae*

Species 20 to 26 are placed in series *Falcatae*, defined by the combination: pith glands absent; filaments inflexed or irregularly flexed; anthers oblong to ovoid, basifixed, versatile, dehiscing by broad, angled slits; seeds shallowly reticulately pitted, longitudinally grooved, dorsiventrally compressed.

20. Eucalyptus argyphea *L. Johnson & K. Hill*, sp. nov.

Affinis *E. ornatae* sed alabastris fructibusque minoribus et minus costatim sculptis distinguitur. Inter species affinitatis *E. falcatae* combinatione sequenti characterum distinguitur: habitus arborescens (forma 'mallet'); cortex argenteo-albus; alabastra parva non vel vix sculpta; fructus parvi non valde sculpti, nitidi. Pedunculi pedicellique longi et graciles sunt.

Type: Western Australia: 12 km W of Harrismith on road to Wickepin (32°55′S, 117°44′E), *K.D. Hill 659, L.A.S. Johnson, D.F. Blaxell, M.I.H. Brooker, S.D. Hopper*, 8 Nov 1983 (holo NSW; iso CANB, PERTH).

[*Eucalyptus* sp. J of Brooker & Kleinig (1990)]

Tree (mallet) to 15 m, trunk straight to c. 5 m. *Bark* smooth, shining pale silver-grey or white. *Juvenile leaves* opposite for many nodes, elliptic, acute or apiculate, to 4 cm long, 25 mm wide, petioles to 6 mm long. *Adult leaves* disjunct, lanceolate, usually falcate, acute or acuminate, ± glossy, 5–10 cm long, 11–16 mm wide; petioles 10–16 mm long; lateral veins at 30–40° to midrib, ± closely-spaced, densely reticulate between; intramarginal vein distinct, 0.5–1.0 mm from margin. *Umbellasters* axillary, 7-flowered; peduncles terete, 9–13 mm long, slender; pedicels terete, 5–8 mm long, slender. *Mature buds* broad-conical, apically narrow-conical, 16–21 mm long, 5–7 mm diam.; calyptra narrow-conical, narrower than hypanthium, 2.5–3.5 times longer than hypanthium. *Fruits* globular, sometimes ribbed, 3-locular, apically constricted, 6–8 mm long, 5–7 mm diam.; calyptra scar flat, continuous with hypanthium, c. 0.5 mm wide; stemonophore distinct, flat, c. 1 mm wide; disc flat, c. 1 mm wide, separated from stemonophore by a groove, enclosing valve bases and sometimes breaking apart on dehiscence; style persistent, splitting into 3 on dehiscence and giving valves an attenuate appearance; valves and style remnants vertically exserted. *Seeds* glossy dark grey, elliptic, shallowly reticulate, 1.5–2.0 mm long; chaff smaller, reddish brown, angular. Figure 23.

Nearest to *E. ornata* Crisp, from which it differs in the generally smaller and less ribbed buds and fruits. Distinguished within the *E. falcata* Turcz. group by the tree (mallet) habit, the silver-white bark, the small, almost smooth buds (16–21 mm long, 5–7 mm diam.), and the small, often smooth, glossy fruits (6–8 mm long, 5–6 mm diam.). Peduncles and pedicels are relatively long (9–13 and 5–8 mm respectively) and slender.

Distribution: Restricted to the southern Wheat Belt, from Harrismith to south of Lake King (Avon and Roe Districts). Figure 24.

Ecology: A localised species in mallet woodlands on fairly level, pale sandy loams, but often on slight residual lateritic rises, with *E. gardneri* Maiden and *E. longicornis* (F. Muell.) F. Muell. ex Maiden. Once used for tanbark but now extensively cleared for wheatlands.

Conservation status: 3R. The range of this species lies almost wholly within agricultural country that has been extensively and indiscriminately cleared.

Intergrades are recorded with *E. ornata*.

The specific epithet is from the Greek *argypheos*, silvery white, in reference to the striking and distinctive silvery bark of the trunk. The stress is on the second syllable, in English contexts pronounced 'jif'.

SELECTED SPECIMENS (from 16 examined): WESTERN AUSTRALIA (W to E): 13.3 km S of Brookton–Corrigin road on Dudinin road, *Hill 2990*, 31 Aug 1988 (NSW); 8.3 km N of Nyabing on Kukerin North Road, *Brooker 9143*, 9 Dec 1985 (CANB, NSW, PERTH); 6.7 km E of Needilup North Road on Ryans Road, *Hill 3135*, 7 Sep 1988 (NSW); 25.0 km W of Lake King towards Newdegate, *Hill 2392, Johnson, Blaxell & Brooker*, 9 Nov 1986 (NSW, PERTH); 4.6 km W of Hatters Hill Road on Lake King–Norseman road, *Brooker 8682*, 8 Sep 1984 (CANB, NSW, PERTH).

Intergrades with *E. ornata*: 43.5 km W of Lake King–Hyden road on Holt Rock–Kulin road, *Johnson 9188 & B.G. Briggs*, 1 Nov 1988 (NSW); Hatters Hill, *Moltemans 2710*, 26 May 1990 (NSW, PERTH, CANB).

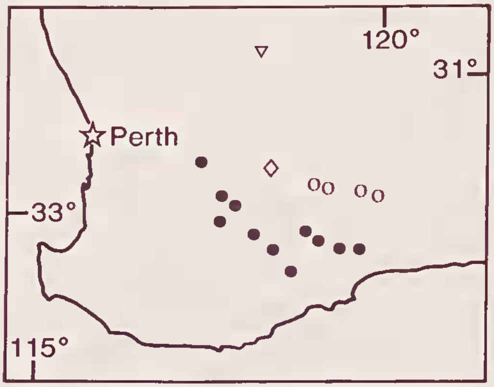

Figure 24. Distribution of *E. argyphea* (●), *E. recta* (▽), *E. ornata* (◇) and *E. argyphea–E. ornata* intergrades (○).

21. Eucalyptus recta *L. Johnson & K. Hill*, sp. nov.

Inter species affinitatis *E. falcatae* combinatione sequenti characterum distinguitur: habitus arborescens (forma 'mallet'); cortex argenteus vel albus; alabastra magna, sculpti in costas latas et non profundas; calyptra longa, acuta; fructus magna; pedunculi pedicellique longi.

TYPE: WESTERN AUSTRALIA: corner of Cadoux–Koorda road and Johnson Road, *K.D. Hill 2504, L.A.S. Johnson & D.F. Blaxell*, 16 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH)

Tree (mallet) to 15 m, trunk straight to c. 5 m. *Bark* smooth, shining pale silver-grey or white. *Juvenile leaves* opposite for many nodes, elliptic, acute or apiculate, to 4 cm long, 25 mm wide, petioles to 6 mm long. *Adult leaves* disjunct, lanceolate, usually falcate, acute or acuminate, ± glossy, 5–10 cm long, 11–16 mm wide; petioles 10–16 mm long; lateral veins at 30–40° to midrib, ± closely-spaced, densely reticulate between; intramarginal vein distinct, 0.5–1.0 mm from margin. *Umbellasters* axillary, 7-flowered; peduncles terete, 15–25 mm long, slender; pedicels terete, 9–18 mm long, slender. *Mature buds* broad-conical, apically narrow-conical, 22–25 mm long, 8–9 mm diam.; calyptra narrow-conical, narrower than hypanthium, 2.5–3.5 times longer than hypanthium. *Fruits* depressed-globular, distinctly ribbed, 3-locular, apically constricted, 8–9 mm long, 10–12 mm diam.; calyptra scar flat, continuous with hypanthium, c. 0.5 mm wide; stemonophore distinct, flat, c. 1 mm wide; disc flat, 1–2 mm wide, separated from stemonophore by a groove, enclosing valve bases and sometimes breaking apart on dehiscence; style persistent, splitting into 3 on dehiscence and giving valves an attenuate appearance; valves and style remnants vertically exserted. *Seeds* glossy dark grey, elliptic, shallowly reticulate, 1.5–2.0 mm long; chaff smaller, reddish brown, angular. Figure 25.

Nearest to *E. ornata* Crisp, from which it differs in the larger buds (buds 14–20 mm long in *E. ornata).* Distinguished in the *E. falcata* group by the tree habit, the white bark, the large buds (22–25 mm long, 8–9 mm diam.) which are broadly shallowly ribbed, the long, acute calyptra, the large fruits (8–9 mm long, 10–12 mm diam.). Pedicels and peduncles are relatively long (15–25 and 9–18 mm respectively).

DISTRIBUTION: Known from a small area near Cadoux (Avon District), well separated from the occurrence of *E. ornata*. Figure 24.

ECOLOGY: Locally frequent but very restricted, in mallet woodlands with *E. gardneri* Maiden, slightly above the surrounding country, as in the cases of *E. argyphea* and *E. ornata*.

CONSERVATION STATUS: 2V. Known only from a restricted area that lies wholly within agricultural country and has been extensively cleared.

The epithet is from Latin *rectus*, straight, referring to the straight trunks.

SELECTED SPECIMENS (from 5 examined): WESTERN AUSTRALIA (N to S): c. 3 miles [5 km] E of Cadoux, *B. Smith 644*, 13 Feb 1986 (MEL, CANB, HO, NSW, PERTH); *Brooker 9381*, 2 July 1986 (CANB, NSW, PERTH); near Manmanning, *B. & M. Smith*, 13 Feb 1985 (CBG 8600356, NSW).

22. Eucalyptus balanopelex *L. Johnson & K. Hill*, sp. nov.

Affinis *E. semiglobosae* sed characteribus sequentibus distinguitur: folia adulta minora angustioraque, pedicelli longiores et calyptra major longiorque.

TYPE: WESTERN AUSTRALIA: 0.5 km from Fisheries road on Coolinup Road, *K.D. Hill 2285 & L.A.S. Johnson*, 6 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

Mallee to 4 m. *Bark* smooth throughout, grey or light brown. *Adult leaves* disjunct, similifacial, broad-lanceolate, acute or acuminate, 5–12 cm long, 7–28 mm wide; petioles 10–23 mm long, flattened; lateral veins moderately spaced, regular, at 30–45° to midrib; reticulum regular; oil glands medium size, sparse; intramarginal vein continuous, distinct, 0.5–1.0 mm from margin. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles terete, 10–20 mm long; pedicels terete, 5–11 mm long. *Mature buds* ovoid, smooth or shallowly ribbed, c. 16 mm long, c. 9 mm diam.; calyptra conical, convex, obtuse or rounded, c. 1.5 times longer than hypanthium. *Stamens* all fertile; filaments regularly inflexed; anthers shortly oblong, dorsifixed, versatile, dehiscing through short parallel slits. *Fruit* globular-truncate, usually somewhat ribbed, 3–4-locular, 8–10 mm long, 10–12 mm diam.; calyptra scar flat, 0.3–1.0 mm wide; inner growth zone scar flat, 0.5–1.0 mm wide; stemonophore elevated 0.5–1.0 mm above scar, flat, 0.5–1.0 mm wide; disc ± vertically depressed, c. 1–2 mm wide; valves narrowly triangular, long apiculate with persistent style remnants, basally deeply enclosed, apically vertically exserted, to 5 mm long. Figure 26.

E. balanopelex differs from *E. semiglobosa* (Brooker) L. Johnson & K. Hill in the larger buds with a larger and longer calyptra, the longer pedicels and the smaller and narrower adult leaves. It occurs in a swampy sandplain habitat in contrast to the granite shelf habitat of *E. semiglobosa*.

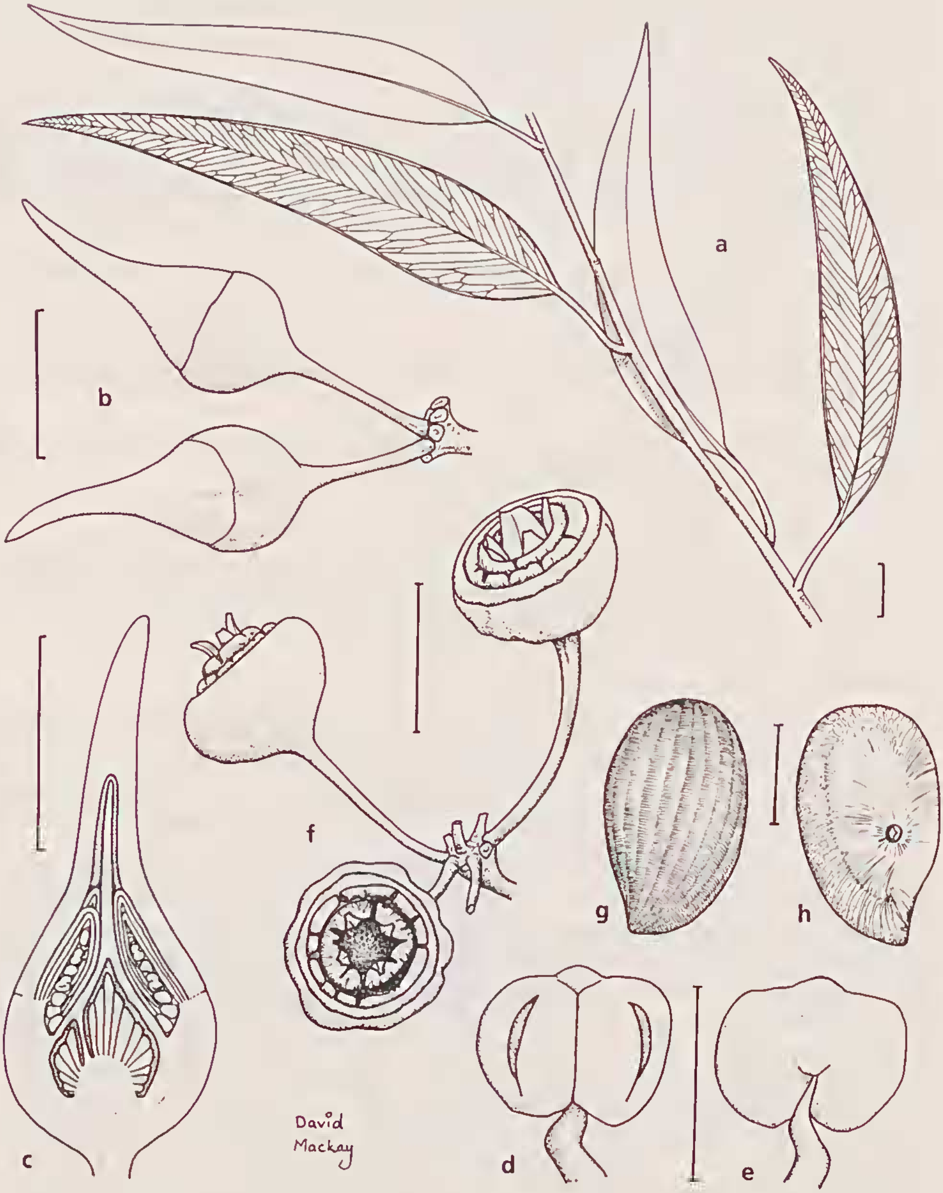

Figure 25. *E. recta*. **a**, adult leaves; **b**, buds; **c**, section of bud; **d**, **e**, anther; **f**, fruits; **g**, **h**, seed (a – e from *Smith 644*, f – h from *Brooker 9381*). Scale bar: a, b, c, f = 1 cm; d, e, g, h = 1 mm.

Distribution: Known only from two populations in the subcoastal area east of Esperance (Eyre District). Figure 27.

Ecology: This is an uncommon species, occurring in small stands in mallee heathland on swampy white or grey sandplain.

Conservation status: 2V. Of restricted occurrence in an area that is suffering active agricultural development.

The epithet is from the Greek *balanos*, an acorn, and *pelex*, a helmet, referring to the shape of the calyptra. The stress is on the penultimate syllable, because of the long 'e' (eta) in the Greek.

Selected specimens (from 5 examined): Western Australia: 14 km from Fisheries Road on Merivale Road, *L. Johnson 9067 & M. Johnson*, 14 May 1988 (NSW, CANB, MEL, PERTH); 30.1 miles [48 km] E of Esperance, *Chippendale 400*, 25 Mar 1968 (CANB, NSW, PERTH).

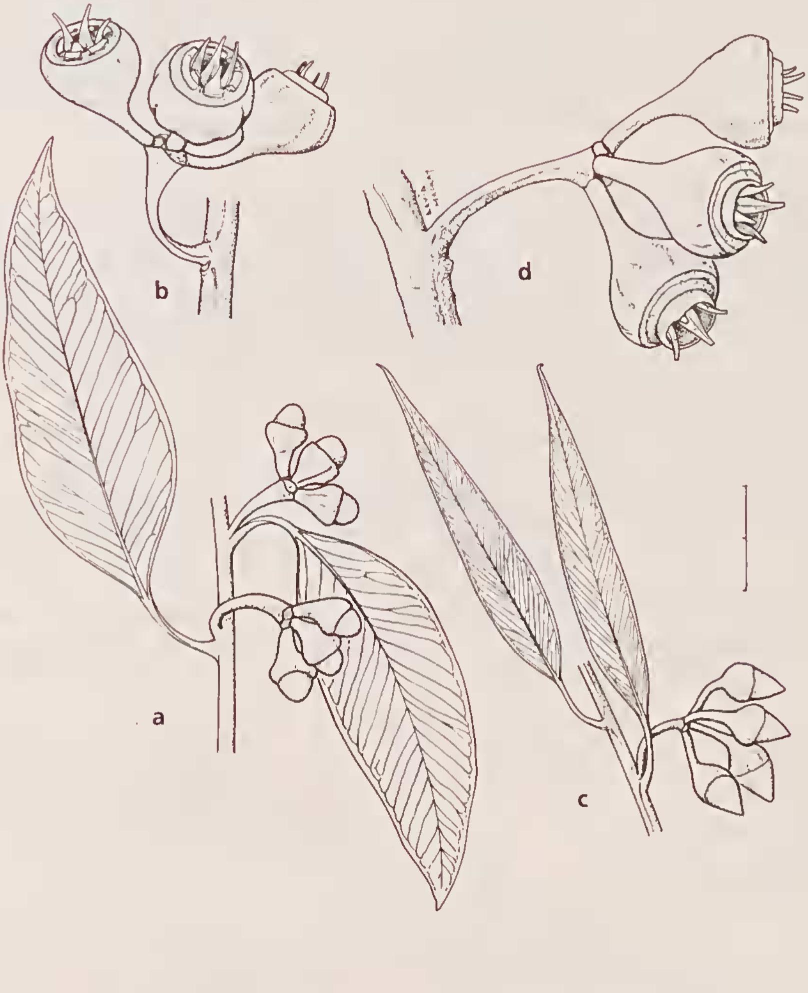

Figure 26. *E. semiglobosa.* **a**, adult leaves and buds; **b**, fruits (all from *Brooker 3613*). *E. balanopelex.* **c**, adult leaves and buds; **d**, fruits (all from *Hill 2285 & Johnson*). Scale bar = 1 cm.

23. Eucalyptus semiglobosa *(Brooker) L. Johnson & K. Hill*, **stat. nov.**

Basionym: *Eucalyptus goniantha* Turcz. subsp. *semiglobosa* Brooker, Nuytsia 2: 110 (1976).

Type citation: 'Type: Between Mt Le Grand and Frenchmans Peak, Western Australia (33°59'S, 122°08'E) 22 April 1972, *M.I.H. Brooker 3613* (holo FRI [now CANB]; iso PERTH, NSW, K, AD, MEL, BRI).'

Mallee to 4 m. *Bark* smooth throughout, grey or light brown. *Adult leaves* disjunct, similifacial, broad-lanceolate, acute or acuminate, 6–12 cm long, 18–38 mm wide; petioles 12–32 mm long, ± quadrangular; lateral veins moderately spaced, regular, at 30–45° to midrib; reticulum regular; oil glands medium size, sparse; intramarginal vein continuous, distinct, 0.5–1.0 mm from margin. Inflorescences simple, axillary; umbellasters 7-flowered; peduncles terete, 9–21 mm long; pedicels terete, 2–8 mm long. *Mature buds* ovoid, smooth or shallowly broadly ribbed, 9–11 mm long, 7–9 mm diam.; calyptra hemispherical or oblong, rounded, about as long or slightly longer than hypanthium. *Stamens* all fertile; filaments regularly inflexed; anthers shortly oblong, dorsifixed, versatile, dehiscing through short parallel slits. *Fruit* globular-truncate, usually somewhat ribbed, 3–4-locular, 8–10 mm long, 10–14 mm diam.; calyptra scar flat, 0.3–1.0 mm wide; inner growth zone scar flat, 0.5–1.0 mm wide; stemonophore elevated 0.5–1.0 mm above scar, flat, 0.5–1.0 mm wide; disc ± vertically depressed, c. 1–2 mm wide; valves narrowly triangular, long apiculate with persistent style remnants, basally deeply enclosed, apically vertically exserted, to 5 mm long. Figure 26.

This taxon is distinguished from *E. goniantha* Turcz. by the elongate pedicels and peduncles and the relatively short, broad calyptra. Recent discovery of *E. goniantha* subsp. *notactites* (see below) within a few hundred metres of the type locality of *E. semiglobosa* indicates that the two are almost sympatric and show little interbreeding. Subspecific status is thus not appropriate. Its sister species is probably *E. balanopelex*, and the two together are then closest to *E. falcata*, with a more distant relationship with *E. goniantha*.

Distribution: Scattered and very sporadic, from Cape Le Grand to Cape Arid (Eyre District). Figure 27.

Ecology: Known from a few stands only, on shallow sandy soil on subcoastal granite domes east of Esperance.

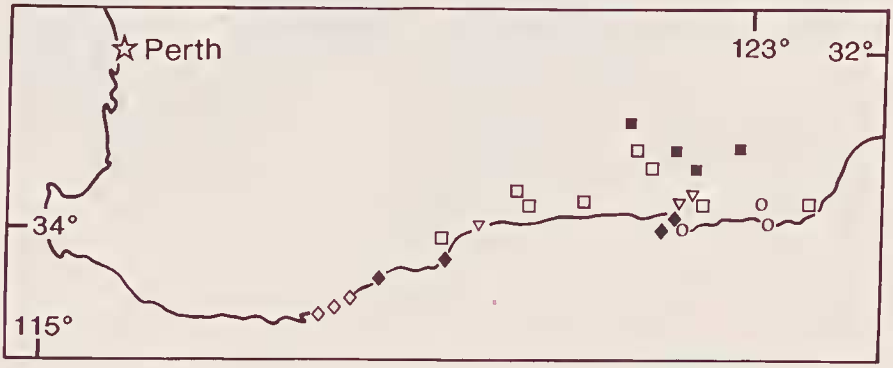

Figure 27. Distribution of *E. goniantha* subsp. *goniantha* (◇), subsp. *notactites* (◆), *E. kessellii* subsp. *kessellii* (■), subsp. *eugnosta* (□), *E. balanopelex* (▽) and *E. semiglobosa* (○).

CONSERVATION STATUS: 2RC. Stands of this species occur in Cape Le Grand and Cape Arid National Parks.

SELECTED SPECIMENS (from 8 examined): WESTERN AUSTRALIA: Whalebone to Quoin Head, *Brooker 10152*, 13 Dec 1988 (CANB, NSW, PERTH); Boyatup Hill, *Pullen 10085*, 18 Dec 1974 (CANB, NSW); SE side and base of Mt Arid, *Hardie 13*, 23 Nov 1985 (NSW); 300 metres E of old Hill Springs homestead, SE side of Mt Arid, *Hill 3161*, 8 Sep 1988 (NSW, AD, CANB, MEL, PERTH).

24. Eucalyptus goniantha *Turcz.*, Bull. Soc. Imp. Nat. Moscou 20(1): 163 (1847).

TYPE CITATION: 'Nova Hollandia, Drum, n. 71.'

TYPE: WESTERN AUSTRALIA: King George Sound, Swan River Colony, *J. Drummond, 3rd collection no. 71*, 1845 (holo LE; iso BM, CGE, E, FI, G, K, W).

≡ *E. incrassata* Labill. var. *goniantha* Maiden, Crit. Revis. Eucalyptus 1: 103 (1904).

The name *E. goniantha* was misapplied by Bentham (1867) to the taxon shown to be *E. kessellii* by critical examination of the types (see below). This misapplication was followed by subsequent authors. Both Maiden and Blakely recognised the type form of *E. kessellii* as a distinct taxon (see below), but persisted with the misapplication for the more widespread and less distinctive form discussed below. Brooker & Kleinig (1990) correctly apply the names *E. goniantha* and *E. kessellii*, although they include *E. semiglobosa* (above) in the former, and illustrate fruits of *E. kessellii* as *E. goniatha*.

Mallee to 6 m, rarely a tree. *Bark* smooth, grey to brown or orange, shedding in patchily adherent scales, especially on lower trunk. *Branchlets* winged, glaucous. Juvenile leaves disjunct, petiolate, ovate to orbicular, to 13 cm long, 8 cm wide. *Adult leaves* disjunct, broad-lanceolate to ovate, acute to acuminate, dull, 6–15 cm long, 10–50 mm wide; petioles angular, 9–25 mm long, angles decurrent; lateral veins at 30–45° to midrib, ± closely spaced, regular, densely reticulate between; intramarginal vein distinct, 1–2 mm from margin. *Umbellasters* axillary, 7–11-flowered; peduncles strongly winged, 7–16 mm long, to 7 mm wide apically; pedicels 0–5 mm long, to 3 mm wide. *Mature buds* elongate-ovoid, apically constricted, hypanthium ± 2-winged, 8–17 mm long, 5–7 mm diam.; calyptra conical, obtuse, with a distinct median constriction, 1–1.5 times longer than hypanthium. *Stamens* all fertile; filaments regularly inflexed in bud, kinked at point of flexure; anthers shortly oblong, dorsifixed, versatile; cells divergent, dehiscing by short slits. *Fruits* globular to hemispherical, apically constricted, 3–4-locular, 6–9 mm long, 6–11 mm diam.; calyptra scar distinct, recessed, flat, c. 0.5 mm wide; disc 1.5–2 mm wide, depressed at c. 45°; valves deeply enclosed basally, vertically exserted, long-acuminate with remains of persistent style fused to each valve. *Seeds* semiglossy, dark grey to black, elliptic, shallowly reticulate, 1.5–2.0 mm long; hilum ventral; chaff smaller, angular, glossy red-brown.

Distinguished within the series by the combination: bark smooth; juvenile leaves broad; peduncles and pedicels short, thick; fruits rounded, apically contracted.

Two geographic subspecies are recognised chiefly on differences in pedicel length.

1 Pedicels more than 2 mm long .... 24a. subsp. goniantha

1* Pedicels less than 1 mm long or absent .... 24b. subsp. notactites

24a. Eucalyptus goniantha *Turcz.* subsp. goniantha

Branchlets winged, not glaucous. *Adult leaves* disjunct, lanceolate to broad-lanceolate, acute to acuminate, dull, 8–11 cm long, 10–20 mm wide; petioles 9–25 mm long.

7–11-flowered; peduncles 7–10 mm long, to 0.7 mm wide apically. *Pedicels* more than

2 mm long. *Buds* 8–14 mm long, 4–6 mm diam. *Fruits* pedicellate, hemispherical, 6–8 mm long, 6–9 mm diam.

Distribution: Known only from a few headlands and subcoastal hills in the Two Peoples Bay area (Menzies District). Figure 27.

Ecology: Locally frequent but very restricted in distribution, in dense coastal shrub heath on shallow sandy soils.

Isolated occurrences of intergrading forms with *E. falcata* Turcz. (sens. lat.) are known.

Conservation status: 2RC.

Selected specimens (from 5 examined): Western Australia: walking track on Flinders Peninsula, *Brooker 9993*, 20 July 1988 (CANB, NSW, PERTH); c. 3 km W of Manypeaks, *Brooker 9822*, 26 Nov 1987 (CANB, NSW, PERTH); West Ridge, Two Peoples Bay, *Brooker 7191*, 15 Nov 1981 (CANB, NSW, PERTH).

***E. falcata* sens. lat. – *E. gonianthа* subsp. *goniantha* intergrade:** 26 km E of Bakers Junction on road to Manypeaks, *Brooker 8738*, 29 Nov 1984 (CANB, NSW, PERTH).

24b. Eucalyptus goniantha *Turcz.* subsp. **notactites** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie typica ramulis novellis et pedunculis valde alatis; foliis longioribus crassioribusque et fructibus plus sessilibus differt.

Type: Western Australia: Mt Melville garbage tip, 16.5 km from highway, *K.D. Hill 2429, L.A.S. Johnson, D.F. Blaxell & M.I.H. Brooker*, 12 Nov 1986 (holo NSW; iso PERTH).

Branchlets winged, glaucous. *Adult leaves* disjunct, broad-lanceolate to ovate, acute to acuminate, dull, 6–15 cm long, 15–50 mm wide; petioles 9–25 mm long. *Umbellasters* 7–11-flowered; peduncles 9–16 mm long, to 0.7 mm wide apically. *Mature buds* sessile or on short pedicels (to 1 mm long), hypanthium ± 2-winged, 11–17 mm long, 5–7 mm diam. *Fruits* globular, sessile, ± 2-winged, 6–8 mm long, 8–10 mm diam. Figure 28.

Subsp. *notactites* differs from subsp. *goniantha* in the more sessile buds and fruits, the strongly winged young branchlets and peduncles, and the longer, thicker leaves.

It was referred to as *E. goniantha* subsp. 'sessile fruit', by Brooker & Kleinig (1990).

Distribution: This taxon has a very scattered, sporadic distribution from Mt Melville in the Cape Riche area east to Cape Le Grand, with a large disjunction in the range. Figure 27.

Ecology: Locally frequent on shallow sand on laterite or on white sand, known only from sites very near the sea.

Conservation status: 3RC.

The epithet is from the Greek *notos*, the south, and *aktites*, a watcher, from the subspecies' occurrence on the south-facing oceanic coast.

Selected specimens (from 10 examined): Western Australia (W to E): Konkoberup Hill (Mt Melville), *Brooker 8945*, 12 Apr 1985 (CANB, NSW, PERTH); Cape Riche, *Diels 3504*, 18 July 1901 (B, NSW); 5.5 km S of Borden–Bremer Bay road on Reef Beach Road, *Brooker 8872*, 2 Mar 1983 (CANB, NSW, PERTH); c. 2 km W of Hood Point, *Brooker 9918*, 9 Mar 1988 (CANB, NSW, PERTH); Cape Le Grand, *Hill 3156*, 8 Sep 1988 (NSW, CANB, PERTH); Sandy Hook Island near Esperance (34°04'S, 122°20'E), *Brooker 7492, 7493*, 1 May 1982 (CANB, NSW, PERTH).

Intergrades between the subspecies: Cheyne Beach, 1 km along track to Mermaid Point, *Brooker 7170*, 14 Nov 1981 (CANB, NSW, PERTH).

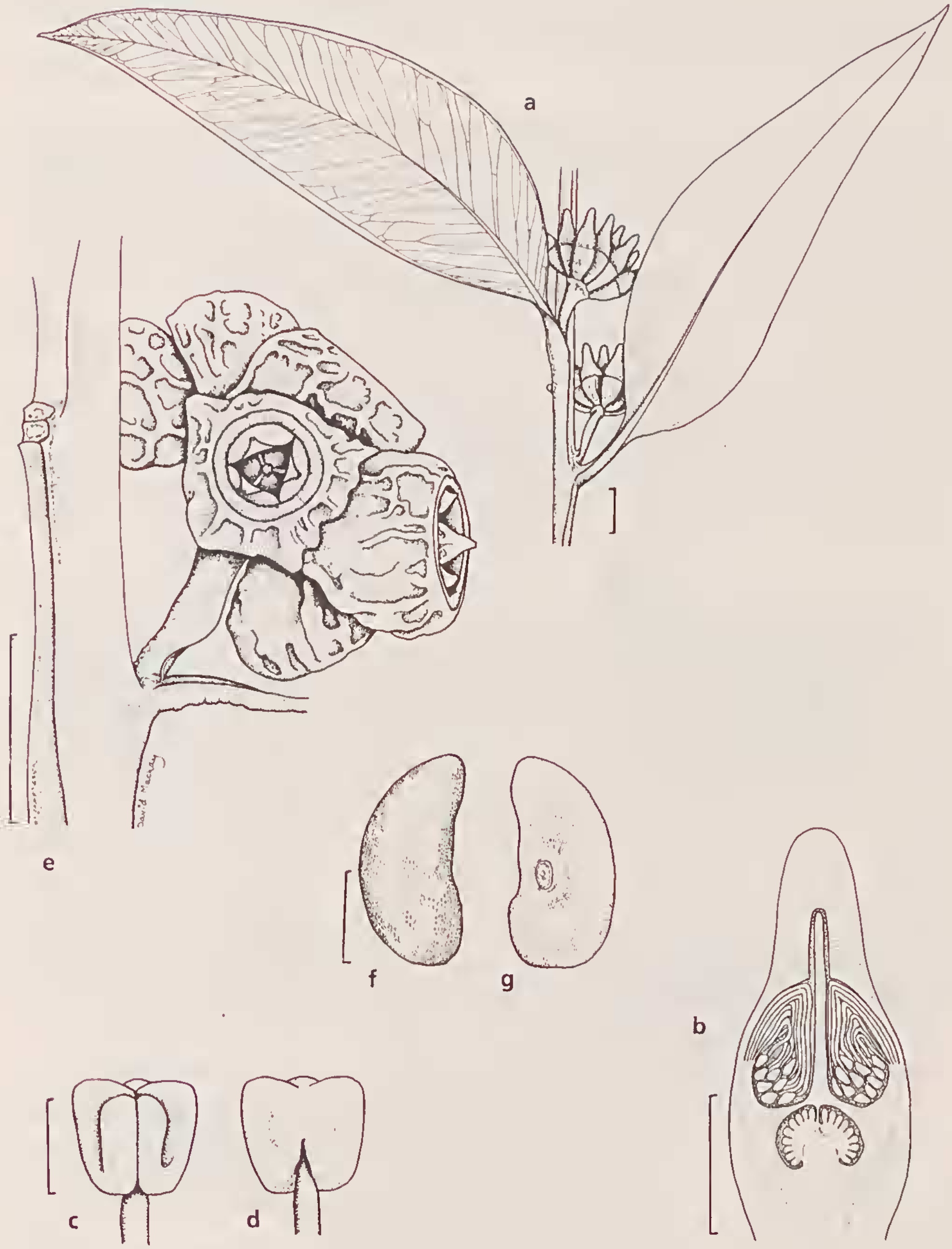

Figure 28. *E. goniantha* subsp. *notactites*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits; **f**, **g**, seed (a – d from *Brooker 7492*, e – g from *Brooker 7493*); Scale bar: a, f = 1 cm; b = 5 mm; g, h = 1 mm; d, e = 0.5 mm.

25. Eucalyptus kessellii *Maiden & Blakely*, J. & Proc. Roy. Soc. New South Wales 59: 187 (1925).

TYPE CITATION: 'Known only from Western Australia. Found in sandy loam in Mallee thickets at a place called Salmon Gums, 66 miles north of Esperance (W.P. Brown per C.A. Gardner, no. 944a; the type).'

TYPE: holo NSW; iso PERTH.

[*E. goniantha* auct. plur. non Turcz.: Bentham (1867); Maiden, Crit. Revis. Eucalyptus 2: 200 (1912); Blakely (1934); Gardner (1960); Chippendale (1973); Chippendale (1988); Brooker & Kleinig (1990: 216, photograph of fruits). Both Maiden and Blakely recognised the type form of *E. kessellii* as a taxon distinct from the less coarse and more widely known form which they regarded incorrectly as *E. goniantha*, and which we separate as a subspecies of *E. kessellii*, below. Gardner (1960) included *E. kessellii* in *E. goniantha*, and was followed by Chippendale (1973, 1988).]

[*E. corrugata* auct. non Luehmann, Victorian Nat. 13: 168 (1897). The binomial *E. corrugata* was also published as a *nomen nudum* by Diels & Pritzel (1905: 443), and that publication was then cited (as *E. corrugata* Luehmann ex Diels) as a synonym of *E. goniantha* (in the incorrect application of the latter name) in Index Kewensis. The Diels publication cites the same specimen as the type in Luehmann's earlier publication, a Sayer collection from near Southern Cross, which is a specimen of *E. corrugata* Luehmann, and collected at a great distance from the nearest occurrence of *E. goniantha*.]

Tree or mallee to 10 m. *Bark* persistent for basal 0.5–3 m, dark grey, coarsely fibrous, then smooth, grey, pink and pale brown. *Juveniles leaves* disjunct, ovate to orbicular, to 12 cm long, 8 cm wide, becoming broad-lanceolate. *Adult leaves* disjunct, lanceolate to broad-lanceolate, acute or acuminate, similifacial, 7–14 cm long, 22–34 mm wide; petioles 10–22 mm long; lateral veins regular, at 30–40° to midrib; oil glands densely packed. *Inflorescences* simple, axillary; umbellasters 3–7-flowered; peduncles thick, angular or ± flattened, 12–25 mm long; pedicels angular, 1–4 mm long. *Buds* broadly ovoid, almost smooth to prominently ribbed, 13–25 mm long, 10–15 mm diam.; calyptra conical, often beaked, smooth to ribbed. *Stamens* all fertile; filaments regularly inflexed; anthers ovoid, versatile, dorsifixed low on connective gland, dehiscing through lateral pores. *Fruits* obconical, almost smooth to prominently ribbed, 4–5-locular, 10–18 mm long, 12–18 mm diam.; calyptra scar raised at c. 45°, 1.5–2 mm wide; stemonophore ± raised, 0.5–1.0 mm wide, usually splitting due to greater differential growth in underlying hypanthium; disc flat, ultimately markedly incurved, 2–3 mm wide; valves narrowly triangular, long-apiculate with persistent style remnants, basally deeply enclosed, apically vertically exserted, to 7 mm long.

Two geographic subspecies are recognised on differences in fruit ornamentation.

1 Fruits distinctly ribbed, ribs more than 1 mm high .... **25a. subsp. kessellii**

1* Fruits smooth or with ribs less than 1 mm high .... **25b. subsp. eugnosta**

25a. Eucalyptus kessellii *Maiden & Blakely* subsp. kessellii

Bark persistent on lower trunk. *Buds* and fruits prominently ribbed. *Umbellasters* sometimes 3-flowered. Figure 29.

DISTRIBUTION: This subspecies occupies a zone to the north and north-east of Esperance, from around Salmon Gums to north-east of Mt Ney. Figure 27.

ECOLOGY: Locally frequent in tall mallee woodland on flat sites on pale sandy often somewhat calcareous clay-loams, often with woodland species such as *E. creta*

L. Johnson & K. Hill and *E. oleosa* F. Muell. ex Miq. (sens. lat.).

Conservation status: Not considered to be at risk.

Selected specimens (from 7 examined): Western Australia (W to E): 28 km NE of Mt Ridley on track, *Blaxell 86/091, Johnson, Hill & Brooker*, 5 Nov 1986 (NSW); Mt Ney Road, *Brooker 8928*, 10 Apr 1985 (CANB, NSW, PERTH); 30 miles [50 km] NE of Mt Ney, *Beard 6377*, 17 Sep 1970 (PERTH, NSW).

25b. Eucalyptus kessellii *Maiden & Blakely* **subsp. eugnosta** *L. Johnson & K. Hill,* **subsp. nov.**

Ab subspecie typica umbellastris regulariter 7-floris et alabastris fructibusque minoribus et prominenter costatis differt.

Type: Western Australia: 15.2 km W of highway on Speddingup West Road, *K.D. Hill 2397, L.A.S. Johnson, D.F. Blaxell & M.I.H. Brooker*, 7 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

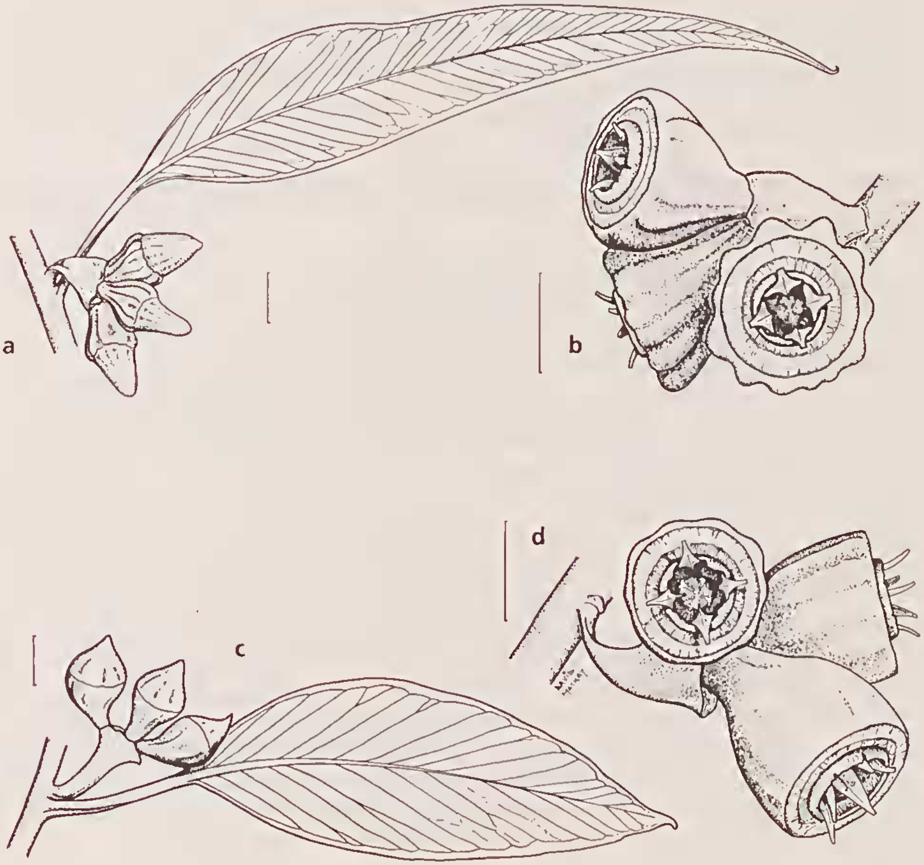

Figure 29. *E. kessellii* subsp. *kessellii*. **a**, adult leaves and buds; **b**, fruits (all from *Brooker 8928*). Subsp. *eugnosta*. **c**, adult leaves and buds; **d**, fruits (all from *Hill 2297 et al.*). Scale bar = 1 cm.

Bark smooth. *Buds* and fruits smooth to shallowly ribbed. *Umbellasters* 7-flowered. Figure 29.

Distinguished from subsp. *kessellii* by the smooth bark, the consistently 7-flowered umbellasters, and the smooth or less prominently ribbed buds and fruits.

DISTRIBUTION: Subsp. *eugnosta* occurs to the south of subsp. *kessellii*, nearer the coast. It also ranges further in both easterly and westerly directions, from about the Hamersley River east almost to Israelite Bay (Eyre District). Figure 27.

ECOLOGY: Locally frequent in mixed mallee scrub on pale sandy soils, often over laterites. This taxon occurs in a more typical 'sand plain mallee' habitat and community than subsp. *kessellii*.

Hybrids are recorded with *E. falcata* Turcz. (sens. lat.).

CONSERVATION STATUS: Not considered to be at risk.

The epithet is from the Greek *eugnostos*, well-known or familiar, this being the better-known race of *E. kessellii*, though not the one that includes the nomenclatural type.

SELECTED SPECIMENS (from 13 examined): WESTERN AUSTRALIA (W to E): 3.5–4 miles [5.5–6.5 km] N of Mt Bland, Fitzgerald River Nat. Park, *Tindale 3854a*, 30 Aug 1973 (NSW, PERTH); 8.8 miles [14 km] SE of Jerdacuttup River crossing on highway, *Tindale 3814*, 28 Aug 1973 (NSW, PERTH); 90 km W of Esperance on Ravensthorpe road, *Blaxell 1687*, 22 June 1978 (NSW, PERTH); 31.2 miles [50 km] E of Esperance, *Chippendale 401*, 25 Mar 1968 (CANB, NSW); c. 2.5 km from Israelite Bay track on Mt Ragged track, *Brooker 8914*, 8 Apr 1985 (CANB, NSW, PERTH).

Intergrades between the subspecies: Western Australia: 45.2 miles [72 km] W of Esperance, *Chippendale 193*, 15 Mar 1967 (CANB, NSW); 29.7 miles [47.5 km] E of Esperance, *Brooker 2506*, 15 Feb 1970 (PERTH, NSW).

E. falcata* sens. lat. x *E. kessellii* subsp. *eugnosta: Western Australia: 90 km W of Esperance on Ravensthorpe road, *Blaxell 1691*, 22 June 1978 (NSW, PERTH).

26. Eucalyptus balladoniensis *Brooker*, Nuytsia 2(2): 103, Figure 1, 2 (1976).

TYPE CITATION: '80 km by road south of Zanthus towards Balladonia, W.A. (31°37'S, 123°53'E); *M.I.H. Brooker 2471*, 13.2.1970 (holo PERTH; iso FRI [now CANB], NSW).'

TYPE: The Holotype specimen (in PERTH) is from the Balladonia race (subspecies *balladoniensis*, with pedicellate fruit), although the citation refers to a locality where the Zanthus race (subsp. *sedens*, with sessile buds and fruits) is known to occur. All other specimens from the cited locality match the Zanthus race, including supposed duplicates of the Type (cited as distributed to FRI [now CANB] and NSW but actually held in PERTH). The actual Holotype bears no field collection tag, whereas the 'duplicates' bear 'Brooker 2471' tags. The protologue description and illustration are consistent with the Balladonia race, and Brooker (pers. comm.) states that specimens have apparently been mixed, and that the protologue was drawn up from the Balladonia material. The untagged specimen in PERTH is hence regarded as the Holotype. The cited locality and details do not correspond to this specimen, and are regarded as erroneous. The Holotype matches a later collection (*Brooker 3653*) from 20 km W of Balladonia on Highway 1, and this can be regarded as the type locality.

Mallee to 10 m. *Bark* persistent for basal 0.5–3 m, then smooth, grey and pale brown. *Juveniles leaves* disjunct, linear, to 8 cm long, 5 mm wide, becoming lanceolate. *Adult leaves* disjunct, lanceolate, acute or acuminate, similifacial, 7–13 cm long, 12–25 mm wide; petioles 10–22 mm long; lateral veins regular, at 30–40° to midrib; oil glands densely packed. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles thick, angular or ± flattened, 6–20 mm long; pedicels angular, 1–9 mm long. *Buds* ovoid, distinctly broadly beaked, 17–22 mm long, 8–11 mm diam.; calyptra broadly rostrate. *Stamens* all fertile; filaments regularly inflexed; anthers ovoid, versatile, dorsifixed low on connective gland, dehiscing through lateral pores. *Fruits* obconical to cup-shaped or broadly hemispherical, apically ± constricted, 4–5-locular, 7–11 mm long, 8–12 mm diam.; calyptra scar raised at c. 45°, 1.5–2 mm wide; stemonophore ± raised, 0.5–1.0 mm wide, usually splitting due to greater differential growth in underlying hypanthium; disc flat, ultimately markedly incurved, 2–3 mm wide; valves narrowly triangular, long-apiculate with persistent style remnants, basally deeply enclosed, apically vertically exserted, to 7 mm long.

Two subspecies are recognised on differences in pedicel length.

1 Pedicels more than 6 mm long .... **26a.** subsp. **balladoniensis**

1* Pedicels 0–2 mm long .... **26b.** subsp. **sedens**

26a. Eucalyptus balladoniensis *Brooker* subsp. balladoniensis

Mallee to 10 m. *Bark* persistent for basal 0.5–3 m, then smooth, grey. *Adult leaves* 7–13 cm long, 13–25 mm wide; petioles to 22 mm long. *Peduncles* terete or angular, 9–16 mm long; pedicels terete, 6–9 mm long. *Fruits* 7–11 mm long, 8–12 mm diam.

In general, the pedicels are longest in the southern part of the subspecies' range.

DISTRIBUTION: Scattered from Mt Ridley north and east almost to Balladonia (Roe and Coolgardie Districts). Figure 30.

ECOLOGY: Locally frequent in mallee woodland, often as an understorey species, on sandy calcareous soils.

CONSERVATION STATUS: Not considered to be at risk.

SELECTED SPECIMENS (from 11 examined): WESTERN AUSTRALIA (W to E): 7.1 km NE of Mt Ridley turnoff on Dempster Road, *Hill 2251, Johnson, Blaxell & Brooker*, 5 Nov 1986 (NSW, CANB, CBG, MEL, PERTH); 13 km SW of Clyde Rock road on Mt Ney road, *Hill 2276 & Johnson*, 6 Nov 1986 (NSW, CANB, CBG, MEL, PERTH); 28.8 km NW of Balladonia roadhouse on Highway 1, *Hill 708 & Blaxell*, 14 Nov 1983 (NSW, CANB, PERTH).

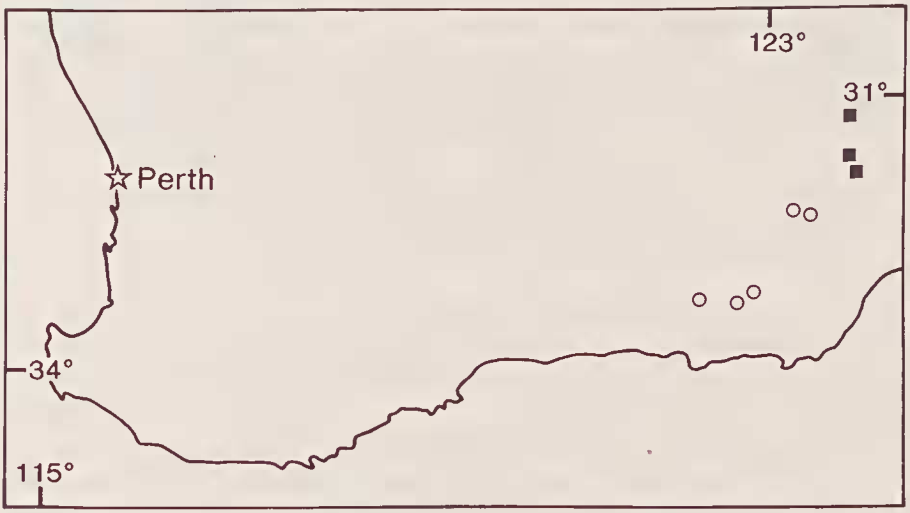

Figure 30. Distribution of *E. balladoniensis* subsp. *balladoniensis* (○) and subsp. *sedens* (■).

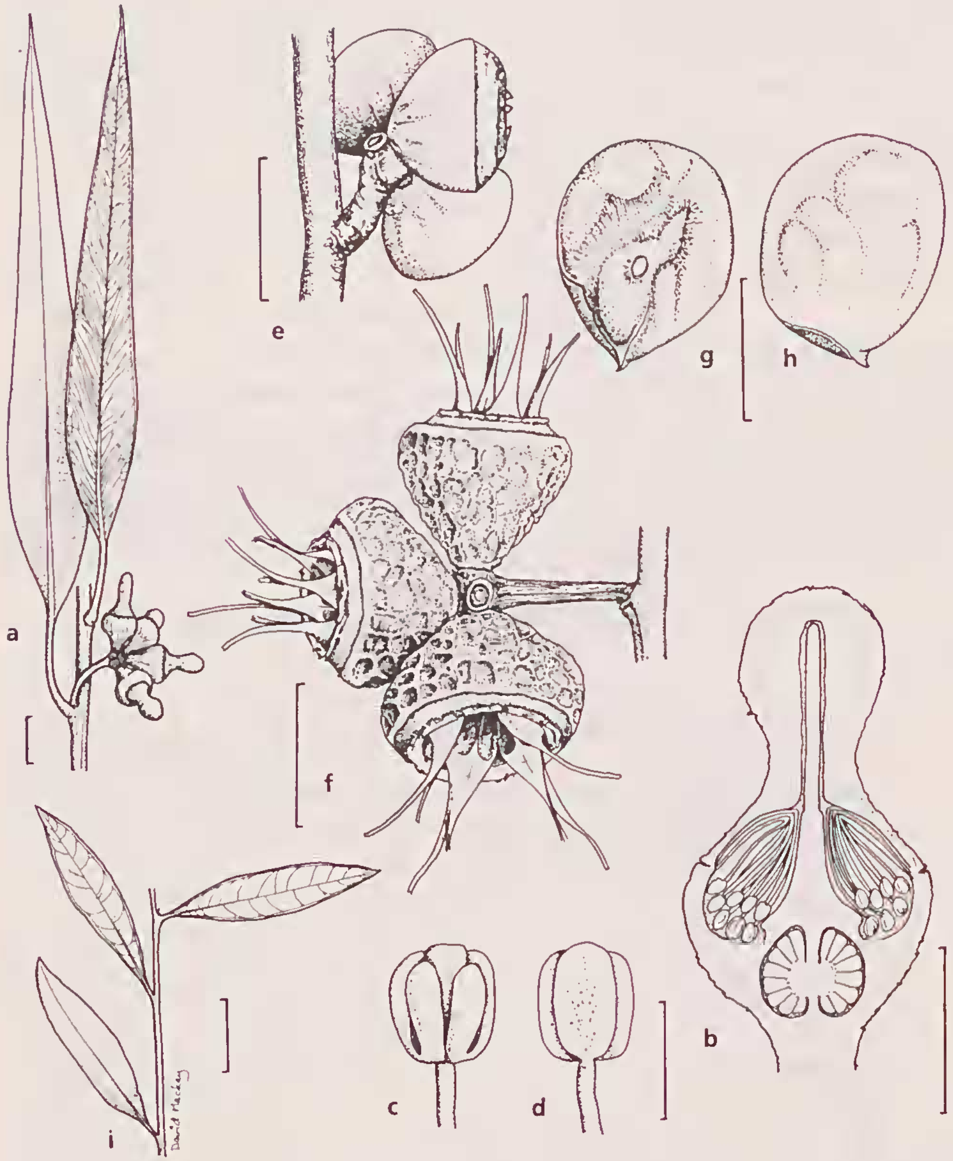

Figure 31. *E. balladoniensis* subsp. *sedens*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, **f**, fruits; **g**, **h**, seed; **i**, juvenile leaves (a, b, c, d, g, h from *Pryor & Briggs 168*, e from *Pryor & Briggs 158*, f from *Pryor & Briggs 163*). Scale bar: a, e, f, i = 1 cm; b = 5 mm; c, d = 0.5 mm; g, h = 1 mm.

26b. Eucalyptus balladoniensis *Brooker* subsp. **sedens** *L. Johnson & K. Hill*, **subsp. nov.**

Ab subspecie typica alabastris fructibusque subsessilibus et pedunculis crassioribus brevioribusque differt.

TYPE: WESTERN AUSTRALIA: 2 km E of Zanthus then 80.6 km S on track to Balladonia, *J.D. Briggs 168 & L.D. Pryor*, 25 Oct 1978 (holo NSW; iso CANB).

Mallee to 6 m. *Bark* persistent for basal 0.5–1.5 m, then smooth, grey. *Adult leaves* 7–12 cm long, 1.2–2.4 cm wide; petioles to 19 mm long. *Peduncles* thick, angular or ± flattened, 6–8 mm long; pedicels ± absent. *Fruits* 8–11 mm long, 9–12 mm diam. Figure 31.

Subspecies *sedens* is distinguished by the subsessile buds and fruits, and the thicker, shorter peduncles.

Subsp. 'sessile fruit' of Brooker & Kleinig (1990).

DISTRIBUTION: Known only from a few populations south of Zanthus (Coolgardie District). Figure 30.

ECOLOGY: A component of eucalypt woodland on flat, calcareous red sand country with a variety of species, including *E. concinna* Maiden & Blakely, *E. flocktoniae* (Maiden) Maiden, *E. gracilis* F. Muell. and *E. platycorys* Maiden & Blakely, with a *Triodia* understorey.

CONSERVATION STATUS: Not considered to be at risk. Although known from a relatively restricted area, this subspecies is likely to be more abundant than is presently known, and occurs in a very remote locality that is secure from disturbance.

The epithet is from the Latin *sedens*, sitting, referring to the subsessile fruits.

SELECTED SPECIMENS (from 4 examined): WESTERN AUSTRALIA (N to S): 27.9 km S of turnoff E of Zanthus on Balladonia track, *Hill 2697 & Johnson*, 30 Nov 1986 (NSW), 29 km S of same turnoff, *Pryor & J. Briggs 158*, 24 Oct 1978 (CANB, NSW), 34.8 km S of same turnoff, *Pryor & J. Briggs 163*, 24 Oct 1978 (CANB, NSW).

Series *Macrocarpae*, subseries *Leptopodosae*

Species 27 to 29 are placed in series *Macrocarpae*, which is defined by the combination: pith glands absent; filaments inflexed or irregularly flexed; anthers oblong to ovoid, dorsifixed, versatile, dehiscing by longitudinal slits; seeds ovoid, shallowly reticulately pitted. Within this series, all species discussed here are placed in subseries *Leptopodosae*, defined by the non-thickened calyptra.

27. Eucalyptus leptopoda *Benth.*, Fl. Austral. 3: 238 (1867).

TYPE CITATION: 'W. Australia, Drummond, 5th Coll. Suppl. n. 33 and 36, also n. 151 and 188 of other sets.'

TYPE: *Drummond 5th Coll. Suppl. no. 33* (lecto K; isolecto BM, CGE, E, FI, K, KW, LE, MEL, NSW, PERTH, W). Crisp (1982) established lectotypification, although Mueller (1878) had already excluded Drummond 151 and 188 from *E. leptopoda*, including them in *E. salmonophloia* F. Muell.

[*E. augustifolia* Turcz., Bull. Cl. Phys.-Math. Acad. Soc. Sci. Saint-Petersbourg 10: 337 (1852), nom. illegit.; non Desf. ex Link, Enum. Hort. Berol. 2: 30 (1822)]

Mallee to 2.5 m, less commonly a tree to 7 m. *Bark* smooth, grey, cream or white and pink or brown, shedding in ribbons, sometimes persistent on lower trunk, thick, shortly fibrous-flaky. *Juvenile leaves* disjunct, linear to lanceolate, to 12 cm long, 10 mm wide. *Adult leaves* dull, grey-green, disjunct, similifacial, linear to lanceolate, 5–14 cm long, 3–17 mm wide; petioles 3–12 mm long; lateral veins irregular, at 25–45° to midrib; intramarginal vein distinct, 0.5–1.5 mm from margin. Inflorescences simple, axillary; umbellasters 7–11(–15)-flowered; peduncles slender, terete, 5–19 mm long; pedicels slender, terete, 3–11 mm long. *Buds* conical, 7–11 mm long, 4–6 mm diam.; hypanthium hemispherical, calyptra conical, sometimes rostrate. *Stamens* all fertile; filaments variously flexed; anthers dorsifixed low on connective gland, versatile, ovoid, dehiscing through short parallel slits. *Fruits* hemispherical to flattened-globular, 5–8 mm long, 6–11 mm diam.; calyptra and stemonophore scars narrow, depressed; disc level to domed; valves 4–5(–6), triangular, acuminate with persistent tips of style, raised. *Seeds* ovoid, dull, deep red-brown, shallowly pitted; hilum ventral.

Four broadly geographic subspecies are recognised.

1 Disc steeply raised in fruit
    2 Adult leaves lanceolate .... **27b.** subsp. **elevata**
    2* Adult leaves linear .... **27c.** subsp. **arctata**
1* Disc flat or rounded in fruit
    3 Inflorescences mostly more than 7-flowered; branchlets pruinose .... **27a.** subsp. **leptopoda**
    3* Inflorescences all or mostly 7-flowered; branchlets not or weakly pruinose .... **27d.** subsp. **subluta**

27a. Eucalyptus leptopoda *Benth.* subsp. leptopoda

Branchlets pruinose. *Leaves* narrow-lanceolate to lanceolate (broader in the east of the range), 7–13 cm long, 6–12 mm wide; petioles 6–11 mm long. *Umbellasters* (7–)11(–15)-flowered; peduncles 6–17 mm long; pedicels 4–8 mm long. *Fruits* 6–7 mm long, 7–11 mm wide; disc flat to slightly domed.

Distinguished by the combination: branchlets pruinose; leaves narrow-lanceolate to lanceolate; umbellasters usually more than 7-flowered, often 11- and sometimes to 15-flowered; pedicels slender; fruits small to medium; disc flat to slightly domed. Figure 32.

Large plants may have a short stocking of persistent bark, but this is not as consistent nor well developed as in the north-western subspecies (below). Plants from the north-east of the range (Bullfinch to Bencubbin, collected near Chiddarcooping) show a strikingly pendulous foliage habit.

DISTRIBUTION: near Tammin and Kellerberrin east to near Southern Cross, extending south to Marble Rocks and north to Chiddarcooping. Figure 33.

ECOLOGY: Usually occurs as scattered plants in low heath on deep sands.

CONSERVATION STATUS: Not considered to be at risk.

SELECTED SPECIMENS (from 12 examined): WESTERN AUSTRALIA (W to E): 6.4 miles [10.5 km] N of Bungalla turnoff on highway, *Tindale 3716*, 26 Aug 1973 (NSW, AD, CANB, K, PERTH); Trayning district, *Steedman 1*, May 1937 (NSW); Kwelkan, *Stoward 148*, 4 May 1917 (NSW); 9.5 miles [16 km] E of Merredin, *Johnson W 127*, 16 Dec 1960 (NSW); 6.8 miles [11 km] E of Carrabin by road, *Coveny 8362 & Habersley*, 12 Sep 1976 (NSW, CANB, K, PERTH); firebreak on W side of Chiddarcooping Nature Reserve, *Hill 2199, Johnson & Blaxell*, 15 Nov 1986 (NSW, PERTH).

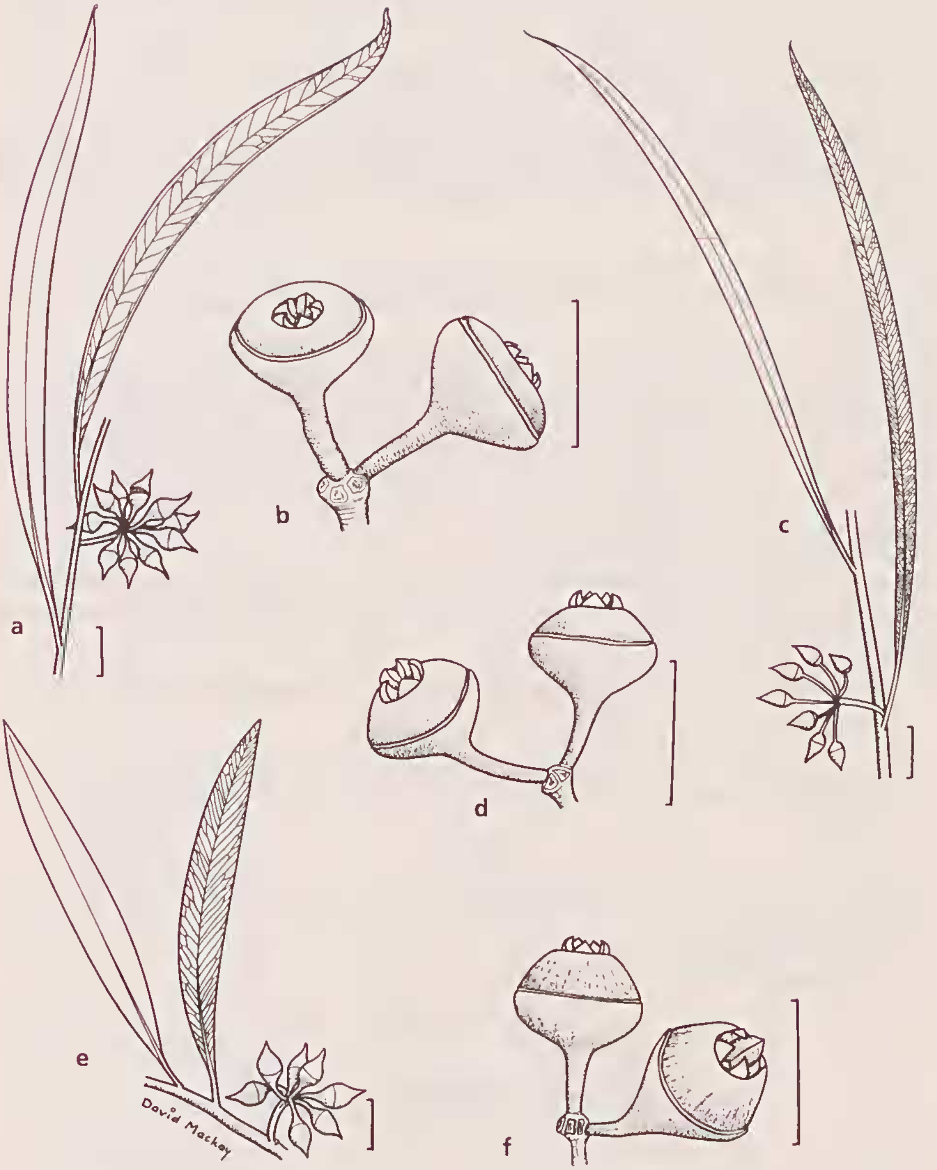

Figure 32. *E. leptopoda* subsp. *leptopoda.* **a**, adult leaves and buds; **b**, fruits (from *Steedman 1*, May 1937). *E. leptopoda* subsp. *arctata.* **c**, adult leaves and buds; **d**, fruits (from *Brooker 7922*). *E. leptopoda* subsp. *elevata.* **e**, adult leaves and buds; **f**, fruits (from *Brooker 7934*). Scale bar = 1 cm.

27b. Eucalyptus leptopoda *Benth.* subsp. **elevata** *L. Johnson & K. Hill*, **sp. nov.**

Inter subspecies *E. leptopodae* combinatione sequenti characterum distinguitur: ramuli non pruinosi; folia lanceolata vel latiora; umbellastrae 7-florae; pedicelli crassi; fructus saepissime mediocres vel magni disco valde elevato.

Type: Western Australia: 16 km from Wiluna – Agnew road on Yeelirrie road, *M.I.H. Brooker 9247*, 17 Apr 1986 (holo NSW; iso CANB, PERTH).

Branchlets not pruinose. *Leaves* lanceolate to broad-lanceolate, 6–10 cm long, 8–17 mm wide; petioles 8–10 mm long. *Umbellasters* 7-flowered; peduncles 7–13 mm long; pedicels 4–9 mm long. *Fruits* 6–8 mm long, 7–10 mm wide; disc strongly raised. Figure 32.

Distinguished by the combination: branchlets not pruinose; leaves lanceolate or broader; umbellasters 7-flowered; pedicels thick; fruits medium to large; disc strongly domed.

A stocking of persistent ribbony rough bark is commonly found on the lower trunks in taller individuals, chiefly in the western part of the range. Brooker & Kleinig (1990: 419) regard these western forms as a separate subspecies (subsp. *pachyphitra* ined.).

A broad zone of intergradation occurs with subsp. *arctata* in the region between Mullewa and south of Morawa (Figure 33). Hybridisation is also recorded with *E. websteriana* subsp. *websteriana*.

Distribution: Locally frequent from Yuna to Morawa and, perhaps with a discontinuity, east to Meekatharra and Wiluna and into the desert almost to 127°E and south to about 29°S. Figure 33.

Ecology: A component of shrub heath on red or yellow sandhill country

Conservation status: Not considered to be at risk.

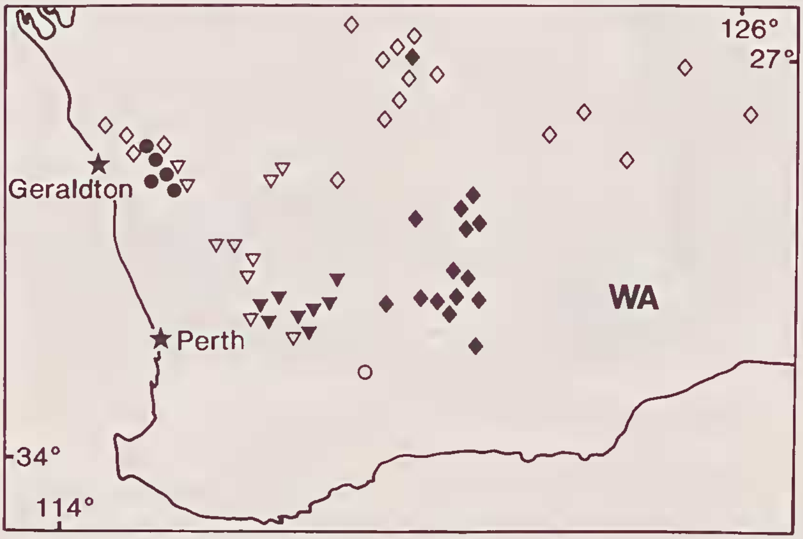

Figure 33. Distribution of *E. leptopoda* subsp. *leptopoda* (▼), *E. leptopoda* subsp. *arctata* (▽), *E. leptopoda* subsp. *elevata* (◇), *E. leptopoda* subsp. *subluta* (◆), *E. leptopoda* subsp. *leptopoda* – subsp. *subluta* intergrade (○) and *E. leptopoda* subsp. *arctata* – subsp. *elevata* intergrades (●).

Selected specimens (from 25 examined): Western Australia (W to E): Horan Road, 5.7 km N of Ogilvie East Road (28°07'S 114°48'E), *Brooker 9934, 9935*, 20 Apr 1988 (CANB, NSW, PERTH); 9.5 km N of Yuna road on Wandara road, *Brooker 7934*, 25 Jan 1983 (CANB, NSW, PERTH); 9.4 miles [16 km] W of Pindar, *Chippendale 48*, 20 Oct 1966 (CANB, NSW); 47.0 km S of Youanmi on Bullfinch road, *Hill 2602 & Johnson*, 25 Nov 1986 (NSW); 64.5 km E of Meekatharra on Wiluna road, *Hill 507, Johnson, Blaxell & Brooker*, 2 Nov 1983 (NSW, CANB, PERTH); 67 km from Wiluna–Agnew road on Sandstone road, *Brooker 8650*, 30 Aug 1984 (CANB, NSW, PERTH); 91.3 km W of Wiluna – Agnew road on Sandstone road, *Brooker 8706*, 17 Oct 1984 (CANB, NSW, PERTH); W of Sandstone road, S of Wiluna, *Speck 858*, 20 Sep 1957 (CANB, NSW); 2.4 km N of Albion Downs turnoff on Leonora – Wiluna road, *Hill 516, Johnson, Blaxell & Brooker*, 3 Nov 1983 (NSW, AD, BRI, CANB, K, MEL, MO, PERTH); 21 km E of Cosmo Newbery, *Brooker 8536*, 9 May 1984 (CANB, NSW, PERTH); 242 km S of Warburton towards Neale Junction, *Brooker 8559*, 11 May 1984 (CANB, NSW, PERTH).

27c. Eucalyptus leptopoda *Benth.* subsp. arctata *L. Johnson & K. Hill*, subsp. nov.

Inter subspecies *E. leptopodae* combinatione sequenti characterum distinguitur: ramuli non pruinosi; folia linearia vel anguste linearia, erecta; umbellastra 7-flora; pedicelli graciles; fructus parvi vel mediocres, disco modice elevato vel aliquando planato.

Type: Western Australia: 20 km E of Dalwallinu towards Kulja, *M.I.H. Brooker 7922*, 12 Jan 1983 (holo NSW; iso CANB, PERTH).

Branchlets not pruinose. *Leaves* linear to narrow-lanceolate, erect, 7–14 cm long, 3–8 mm wide; petioles 3–7 mm long. *Umbellasters* 7-flowered; peduncles 5–9 mm long; pedicels 3–11 mm long. *Fruits* 5–8 mm long, 6–10 mm wide; disc moderately to strongly domed. Figure 32.

Distinguished by the combination: branchlets not pruinose; leaves linear, erect; umbellasters 7-flowered; pedicels slender; fruits small to medium; disc moderately to strongly domed.

Larger individuals usually show a stocking of persistent bark on the lower trunk, as do western occurrences of subsp. *elevata* (above). The two subspecies also intergrade over a broad zone (above).

Although recent collections of this subspecies are from near Cadoux northwards, two older collections indicate an overlap with subsp. *leptopoda*. If these are indeed partly sympatric, the taxonomic rank will require reconsideration. Recent search by one of us (L.J.) in the Merredin–Bruce Rock area has not confirmed the two early vaguely specified collections cited below.

Distribution: From Koolanooka to Tammin and perhaps south of Merredin, northeast to Paynes Find. Figure 33.

Conservation status: Not considered to be at risk.

The epithet is from the Latin *arctatus*, narrowed, in reference to the narrow leaves.

Selected specimens (from 11 examined): Western Australia (W to E): 4.7 km N of Gutha–Wurarga road on McWhirter Road, *Hill 2579 & Johnson*, 23 Nov 1986 (NSW, PERTH); 44 km NNE of Paynes Find, *Brooker 8713*, 18 Oct 1984 (CANB, NSW); rabbit fence 60 miles [100 km] E of Watheroo, *Koch 1609, 1611*, Oct 1905 (NSW); 10.9 km W of Koorda on Cadoux road, *Hill 2503, Johnson & Blaxell*, 16 Nov 1986 (NSW, PERTH); Tammin, *Maiden*, Oct 1909 (NSW); Bruce Rock, *Stoward 19*, Sep 1916 (NSW).

27d. Eucalyptus leptopoda *Benth.* subsp. subluta *L. Johnson & K. Hill*, subsp. nov.

Inter subspecies *E. leptopodae* combinatione sequenti characterum distinguitur: ramuli saepissime non vel leviter pruinosi; folia linearia vel anguste linearia, erecti; umbellastrae saepissime 7-florae; pedicelli graciles; fructus parvi vel mediocres, disco planato.

TYPE: WESTERN AUSTRALIA: 37 km SE of Coolgardie, *M.I.H. Brooker 7048*, 9 Nov 1981 (holo NSW; iso CANB, PERTH).

Branchlets usually weakly or not pruinose. *Leaves* linear to lanceolate, 5–9 cm long, 6–12 mm wide; petioles 10–12 mm long. *Umbellasters* usually 7-flowered (rarely some with more flowers); peduncles 8–10 mm long; pedicels 4–6 mm long. *Fruits* 5–7 mm long, 7–10 mm wide; disc flat to slightly domed.

Distinguished by the combination: branchlets weakly or not pruinose; leaves linear to lanceolate, erect; umbellasters usually 7-flowered; pedicels slender; fruits small to medium; disc flattened.

DISTRIBUTION: Apart from an apparent outlier sympatric with subsp. *elevata* south of Wiluna, this subspecies occupies the south-east of the range of the species, from somewhat north of Menzies to north-east of Norseman. Figure 33.

Some intergradation occurs with subsp. *leptopoda* where the ranges meet.

CONSERVATION STATUS: Not considered to be at risk.

The epithet is from the Latin *sublutus*, washed beneath, referring to the usually slighter degree of pruinosity of the branchlets, in contrast to those of subsp. *leptopoda*.

SELECTED SPECIMENS (from 22 examined): WESTERN AUSTRALIA (N to S): 16 km from Wiluna – Agnew road on Yeelirrie road, *Brooker 9248*, 17 Apr 1986 (CANB, NSW, PERTH); 36 km N of Menzies towards Leonora, *Hill 532, Johnson, Blaxell & Brooker*, 4 Nov 1983 (NSW, AD, CANB, PERTH); 4.2 miles [6 km] N of Menzies towards Leonora, *Baker 91*, 8 Nov 1970 (CANB, NSW); 20 miles [32 km] W of Riverina homestead, *Beard 6514*, 11 Sep 1973 (PERTH, NSW); Comet Vale, *Maiden*, Sep–Nov 1909 (NSW); 0.4 km E of gate, Goongarrie Nat. Reserve, *Brooker 9606, 9607, 9608, 9609*, 6 May 1987 (CANB, NSW, PERTH); 60.3 miles [100 km] W of Coolgardie on highway, *Tindale 59 & Bennett*, 9 Mar 1970 (NSW);66 km SSW of Coolgardie on road to Queen Victoria Rock, *Crisp 5603*, 31 Jan 1979 (CBG, NSW, PERTH); 39.1 km W of Coolgardie – Norseman road on Hyden road, *Hill 2852*, 25 Aug 1988 (NSW).

Subsp. *arctata* – subsp. *elevata* intergrades (from 8 examined): 5.6 km S of Geraldton–Mullewa road on Mingenew road, *Hill 2574 & Johnson*, 23 Nov 1986 (NSW, PERTH); 8.5 miles [15 km] S of Morawa, *Chippendale 55*, 20 Oct 1966 (CANB, NSW).

Subsp. *leptopoda* – subsp. *subluta* intergrades: c. 50 km E of Hyden, 1 km N of Marble Rocks, *Crisp 5549*, 29 Jan 1979 (CBG, CANB, NSW, PERTH).

E. leptopoda* subsp. *elevata* x *E. websteriana* subsp. *websteriana: 91 km NW of airstrip SE of Lake Rason (28°54'S 124°29'E), *Brooker 8574*, 13 May 1984 (CANB, NSW, PERTH).

28. Eucalyptus synandra *Crisp*, Nuytsia 4(1): 129 (1982).

TYPE CITATION: '*Typus*: ± 5 km S of Jingymia, 30°31'S, 117°25'E, 2 Jan. 1981, *A.S. George* 16203, fl., fr., photo, spirit material (holo : PERTH; iso : CBG, FRI [now CANB], K, NSW, PERTH).'

Mallee to 5 m. *Bark* smooth, powdery white over pink and brown, shedding in ribbons. *Juvenile leaves* opposite, lanceolate for about 4 nodes, becoming linear, disjunct, to 8 cm long, 3 mm wide. *Adult crown* thin, pendulous. *Adult leaves* dull, grey-green, disjunct, similifacial, linear to narrow-lanceolate, 6–18 cm long, 6–15 mm wide; petioles 3–15 mm long; lateral veins irregular, at 25–45° to midrib; intramarginal vein distinct, 0.5–1.5 mm from margin. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles slender, terete, 9–18 mm long; pedicels slender, terete, 7–16 mm long. *Buds* conical, 16–24 mm long, 7–8 mm diam.; hypanthium shallowly hemispherical to saucer-shaped, calyptra conical, attenuate. *Stamens* all fertile; filaments variously flexed, cream to pink, united for lower half into a tube; anthers dorsifixed, versatile, ovoid, dehiscing through short parallel slits. *Fruits* hemispherical to flattened-globular, 6–9 mm long, 9–13 mm diam.; calyptra and stemonophore scars narrow, depressed; disc domed; valves triangular, acuminate with persistent tips of style, raised. *Seeds* ovoid, dull, deep red-brown, shallowly pitted; hilum ventral.

E. synandra is described here under a reduced circumscription to allow comparison with the segregate taxon described below. Both taxa are distinguished within the subseries by the partially coherent filaments. The related *E. beardiana* also has partially coherent filaments, and can be distinguished by the elongate cup-shaped hypanthium in bud and fruit, and the longer fruits (9–11 mm long).

Distribution: A rare and localised species of the northeastern Wheat Belt, from near Morawa to near Koorda. Figure 34.

Ecology: This species occurs mostly on shallow sandy soils over gravelly or lateritic rises, in open mallee shrubland with few other eucalypt species.

Conservation status: 3R-. This species is highly localised in distribution, and occurs in country potentially threatened by agricultural activities.

Selected specimens (from 8 examined): Western Australia (W to E): 3.5 km N of Gutha–Wurarga road on McWhirter Road, *Hill 2577 & Johnson*, 23 Nov 1986 (NSW, CANB, CBG, MEL, PERTH); 27 km from Bimbijy Road on Emu Fence Road, *Hill 2515, Johnson & Blaxell*, 16 Nov 1986 (NSW, CANB, CBG, MEL, PERTH).

29. Eucalyptus rosacea *L. Johnson & K. Hill*, sp. nov.

Affinis *E. synandrae* sed characteribus sequentibus distinguitur: folia adulta minora, haud pendula; discus minus elevatus; cortex griseus vel roseus.

Type: Western Australia: 12.0 km S of Queen Victoria Spring on Cundeelee road, *K.D. Hill 2686 & L.A.S. Johnson*, 30 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

[*E. elachyphylla* Brooker & Kleinig, Field Guide Eucalypts 2: 419 (1990); nom. illegit.]

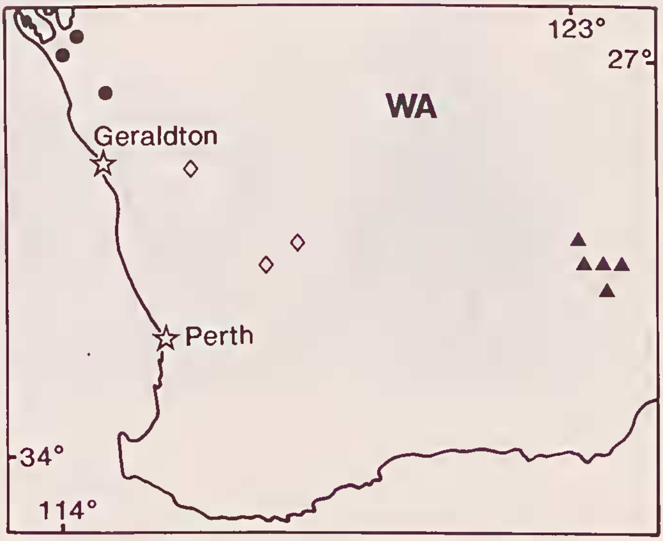

Figure 34. *E. beardiana* (●), *E. synandra* (◇) and *E. rosacea* (▲).

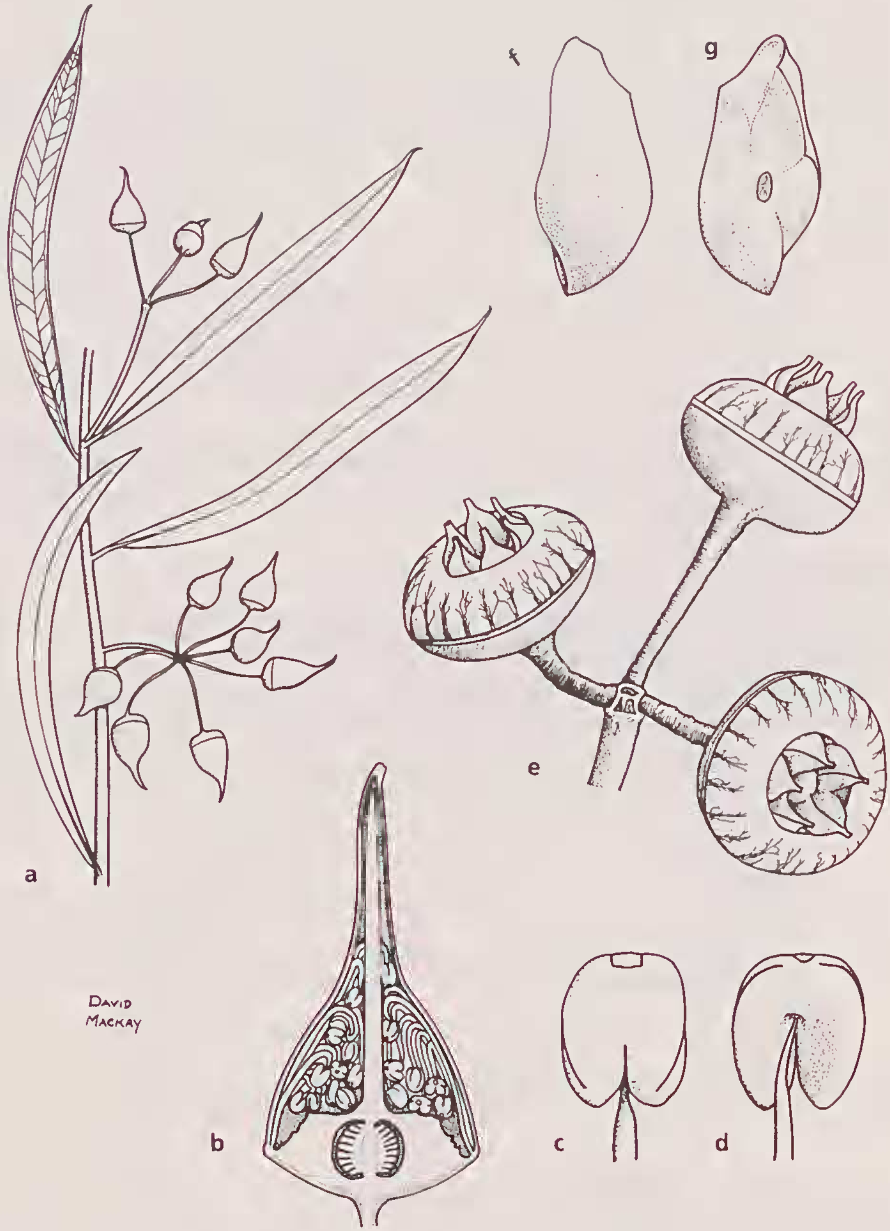

Figure 35. *E. rosacea*. **a**, adult leaves and buds; **b**, section of bud; **c**, **d**, anther; **e**, fruits; **f**, **g**, seed (all from *MacFarlane 1127 & Bedford*). Scale bar: a = 1 cm; b, e = 5 mm; c, d, f, g = 0.5 mm.

Mallee to 2.5 m. *Bark* smooth, grey, white and pink, shedding in ribbons. *Juvenile leaves* opposite, lanceolate for about 6 nodes, becoming linear, disjunct, to 8 cm long, 3 mm wide. *Adult leaves* dull, grey-green, disjunct, similifacial, linear to narrow-lanceolate, 6–12 cm long, 6–10 mm wide; petioles 3–10 mm long; lateral veins irregular, at 25–45° to midrib; intramarginal vein distinct, 0.5–1.5 mm from margin. Inflorescences simple, axillary; umbellasters 3–7-flowered; peduncles slender, terete, 10–20 mm long; pedicels slender, terete, 9–16 mm long. *Buds* conical, 16–20 mm long, 7–8 mm diam.; hypanthium shallowly hemispherical to saucer-shaped, calyptra conical, attenuate. *Stamens* all fertile; filaments variously flexed, cream or pink to red, united for lower half into a tube; anthers dorsifixed, versatile, ovoid, dehiscing through short parallel slits. *Fruits* hemispherical to flattened-globular, 6–9 mm long, 9–13 mm diam.; calyptra and stemonophore scars narrow, depressed; disc slightly raised to domed; valves triangular, acuminate with persistent tips of style, raised. *Seeds* ovoid, dull, deep red-brown, shallowly pitted; hilum ventral. Figure 35.

Distinguished from *E. synandra* (with which it shares the partially united stamen filaments) by the mostly smaller, non-pendulous adult leaves, the less raised disc, and the grey or pink bark (rather than powdery white).

DISTRIBUTION: Known from the south-western fringes of the Great Victoria Desert. Figure 34.

ECOLOGY: Locally frequent to dominant in low open mallee shrubland on shallow aeolian sands over siliceous substrates.

CONSERVATION STATUS: At least locally, and probably more widely, abundant in a remote area – not considered to be at risk.

The epithet is from the Latin *rosaceus*, rosy, referring to the frequently pink flowers and pinkish bark.

SELECTED SPECIMENS (from 6 examined): WESTERN AUSTRALIA (W to E): 33.7 km E of Pinjin on PNC road, *Hill 2667 & Johnson*, 29 Nov 1986 (NSW); 12.2 km S of Queen Victoria Spring on Cundeelee road, *Macfarlane 1127 & Bedford*, 2 Dec 1982 (PERTH, NSW); 1.3 km N of Zanthus, *Hill 2693 & Johnson*, 30 Nov 1986 (NSW).

Series *Orbifoliae*

Species 30 to 33 are placed in series *Orbifoliae*, defined by the combination: pith glands absent; bark longitudinally splitting and peeling ('minniritchi' bark, see Brooker & Kleinig 1990); filaments inflexed or irregularly flexed; anthers ovoid, dorsifixed, versatile, dehiscing by short slits; seeds ovoid, shallowly reticulately pitted. The following four species constitute superspecies *Orbifolia*, defined by the obovate, rounded to retuse adult leaves. The early juvenile leaves are lanceolate to ovate, quickly becoming orbicular, and becoming retuse only at a later ontogenetic stage. This suggests that the retuse adult leaves are not merely neotenous (cf. Brooker & Kleinig 1990: 279). The group consists of small isolated occurrences on rocky sites, and minor differences often exist between populations. However, the populations group into consistent assemblages mostly over large total areas, and four species are distinguishable (Figure 37).

Key to the species of superspecies *Orbifolia*

1 Calyptra rounded

  2 Fruits more than 7 mm long; branchlets strongly pruinose; buds and fruits strongly pruinose .... **33. E. orbifolia**

  2* Fruits less than 7 mm long; branchlets, buds and fruits weakly or not pruinose .... **30. E. websteriana**

1* Calyptra conical

  3 Calyptra more than 3 times longer than hypanthium; leaves mostly longer than broad .... **31. E. educta**

  3* Calyptra less than 2.5 times longer than hypanthium; leaves broader than long .... **32. E. lata**

30. Eucalyptus websteriana *Maiden*, J. & Proc. Roy. Soc. New South Wales 49: 313 (1915).

Type citation: 'Habitat – Near Coolgardie, Western Australia associated with *E. torquata* Luehmann. (Mr. now Dr. C.L. Webster).'

Type: Western Australia: Coolgardie, *L.C. Webster*, 1900 (lecto NSW, here designated). Three specimens in NSW, collected by Webster from Coolgardie in 1898 (forwarded by C. Walter), 1899 and 1900 may be regarded as syntypes. All three have 'Type' labels affixed by Blakely. However, the 1900 collection is the most comprehensive of the three and we therefore designate it the Lectotype. The collector was wrongly cited as 'C.L. Webster' in the protologue.

Mallee to 3 m, of twisted and spreading habit. *Bark* red-brown, splitting longitudinally and peeling partly back to reveal green to brown smooth bark ('minniritchi' bark). *Branchlets* weakly or not pruinose. *Juvenile leaves* disjunct, petiolate, ovate to orbicular. *Adult leaves* disjunct, dull, grey-green, obovate to orbicular, retuse or rounded, 1.5–4.0 cm long, 15–30 mm wide; petioles 10–15 mm long; lateral veins regular, moderately spaced, at 40–50° to midrib; intramarginal vein distinct, more or less looped, 1–3 mm from margin; oil glands angular. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles 8–17 mm long; pedicels 3–8 mm long. *Buds* globular to ovoid, 5–8 mm long, 5–6 mm diam.; calyptra hemispherical, as long as hypanthium or slightly longer. *Stamens* all fertile; filaments slender, irregularly flexed; anthers ovoid, dorsifixed near base of connective gland, versatile, dehiscing through lateral pores. *Fruits* hemispherical to flattened hemispherical, 5–8 mm long, 8–11(–13) mm diam.; calyptra and stemonophore scars raised at c. 45°; disc flat to slightly raised, 2.5–3.5 mm wide. *Seeds* grey-brown, ovoid, shallowly regularly pitted; chaff red-brown.

Distinguished within the superspecies *Orbifolia* by the following combination of characters: adult leaves longer than broad, rounded or retuse; pedicels medium to long (> 3 mm long); calyptra hemispherical; fruits small to medium (< 11 mm diam.); disc slightly swollen; hypanthium bowl-shaped.

Two geographic subspecies are recognised.

1 Branchlets, buds and fruits distinctly pruinose (except when much weathered); pedicels mostly > 5 mm long .... 30a. subsp. **websteriana**

1* Branchlets and buds not pruinose except in very young stages; pedicels mostly < 6 mm long .... 30b. subsp. **norsemanica**

30a. Eucalyptus websteriana *Maiden* subsp. websteriana

Branches, buds and fruits (except when old) distinctly pruinose. *Adult leaves* broad (l:b = 1–1.5:1), retuse or rounded, 1.5–4.0 cm long, 15–30 mm wide; petioles 8–15 mm long. *Pedicels* 5–8 mm long. Figure 36.

Hybrids are recorded with *E. leptopoda* subsp. *elevata* (cited under the latter).

DISTRIBUTION: Sporadic but locally frequent from Coolgardie and Kambalda east to Plumridge Lakes. Figure 37.

ECOLOGY: Found in scleromorphic shrublands on shallow soil on rocky rises.

CONSERVATION STATUS: 3R. Scattered and localised, although probably not under immediate threat.

SELECTED SPECIMENS (from 12 examined): WESTERN AUSTRALIA (W to E): Comet Hill, 11.9 km S ofCoolgardie, *Hill 2633 & Johnson*, 26 Nov 1986 (NSW, PERTH); Red Hill, Kambalda, *Coveny 8430 & Habersley*, 14 Sep 1976 (NSW, BRI, CANB, K, L, MEL, PERTH); E slope of Yowie Hill on Pinjin road, *Hill 2663 & Johnson*, 29 Nov 1986 (NSW, PERTH); SE of Lake Rason (28°54'S 124°29'E), *Brooker 8576*, 13 May 1984 (CANB, NSW, PERTH).

30b. Eucalyptus websteriana *Maiden* subsp. norsemanica *L. Johnson & K. Hill*, subsp. nov.

Ab subspecie typica ramulis alabastris et fructibus maturis non pruinosis, foliis adultis aliquanto angustioribus retusisque et petiolis pedicellisque brevibus differt.

TYPE: WESTERN AUSTRALIA: 5.5 miles [8.5 km] N of Norseman, *L.A.S. Johnson W 176*, 18 Dec 1960 (holo NSW 53307; iso PERTH).

Mature branchlets, buds and fruits not pruinose. *Adult leaves* narrowish, mostly retuse, 2.2–4.0 cm long, 14–21 mm wide; petioles 7–11 mm long. *Pedicels* 3–6 mm long. Figure 36.

Distinguished from subsp. *websteriana* by the non-pruinose mature branchlets, buds and fruits, the somewhat narrower, retuse adult leaves, and the often shorter petioles and pedicels.

DISTRIBUTION: Known from a single stand on skeletal soil on a granite outcrop north of Norseman, but an isolated population near Widgiemooltha shows intermediate characters (see below). Figure 37.

CONSERVATION STATUS: 2V-. Known only from the type locality, which is possibly at risk from mineral exploration and mining activities.

The epithet refers to the town of Norseman, near the type locality.

SELECTED SPECIMENS (from 7 examined): WESTERN AUSTRALIA: 8 km N of Norseman, *Hill 591, Johnson, Blaxell, Brooker & Hopper*, 6 Nov 1983 (NSW); 5.7 miles [9.1 km] N of Norseman, *Brooker 4537*, 11 Apr 1974 (CANB, NSW, PERTH).

Intergrades, subsp. *websteriana* – subsp. *norsemanica*: Lake Lefroy, *Larsen*, Sep 1920 (NSW).

31. Eucalyptus educta *L. Johnson & K. Hill*, sp. nov.

Inter species affinitatis *E. orbifoliae* calyptra longa conicaque distinguitur.

TYPE: WESTERN AUSTRALIA: The Dromedaries, north of Beacon, *M.I.H. Brooker 8436*, 25 Jan 1984 (holo NSW; iso AD, CANB, MEL, PERTH).

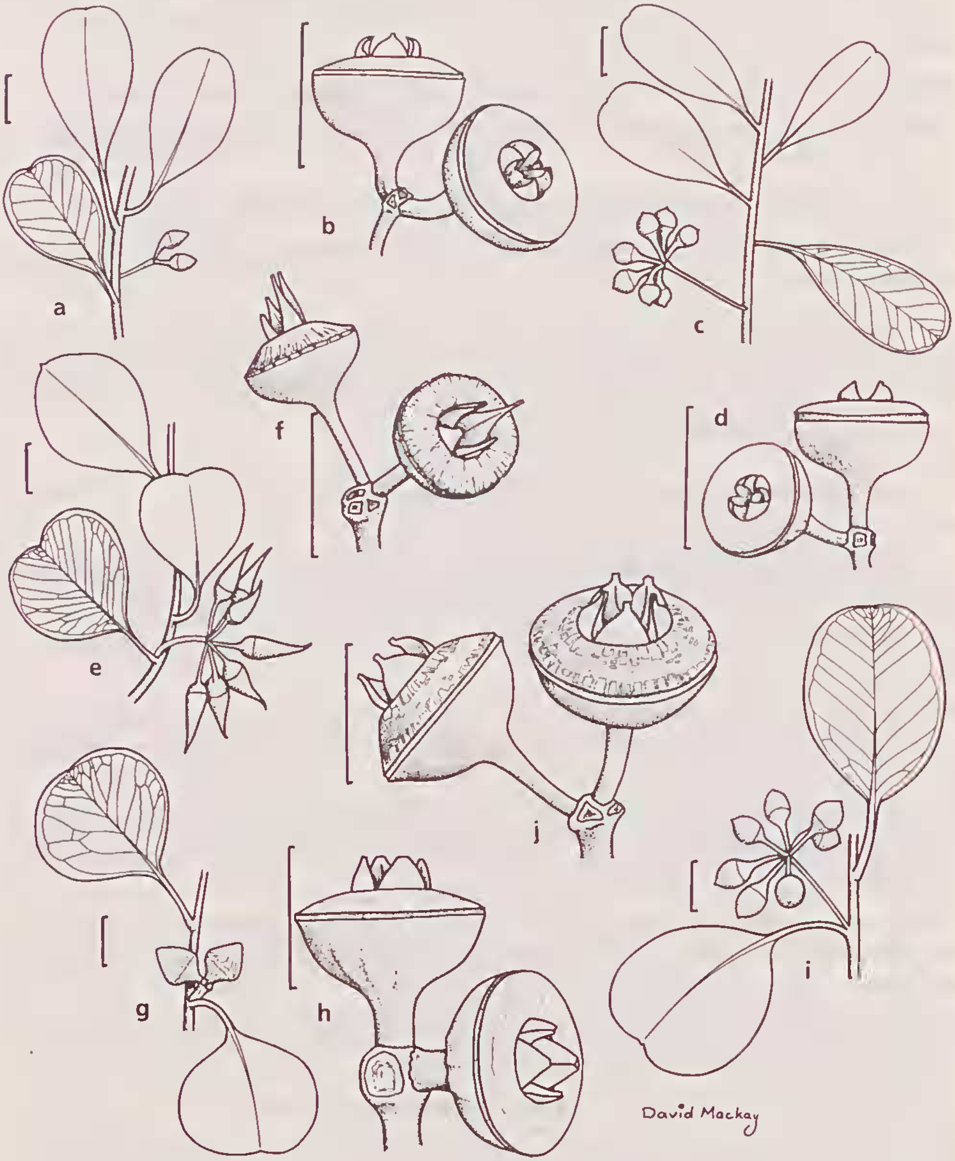

Figure 36. *E. websteriana* subsp. *websteriana*. **a**, adult leaves and buds; **b**, fruits (from *Coveny 8430 & Habersley*). *E. websteriana* subsp. *norsemanica*. **c**, adult leaves and buds; **d**, fruits (**c** from *Brooker 4537*, **d**, from *NSW 53307*). *E. educta*. **e**, adult leaves and buds; **f**, fruits (**e** from *Brooker 8494*, **f** from *Brooker 8436*). *E. lata*. **g**, adult leaves and buds; **h**, fruits (**g** from *Cooper*, June 1923, **h** from *Fraser*, 24 Feb 1922). *E. orbifolia*. **i**, adult leaves and buds; **j**, fruits (from *Brooker 5114*). Scale bars = 1 cm.

Mallee to 3 m, of twisted and spreading habit. *Bark* red-brown, splitting longitudinally and peeling partly back to reveal green to brown smooth bark ('minniritchi'). Branchlets glaucous. *Juvenile leaves* disjunct, petiolate, ovate to orbicular. *Adult leaves* disjunct, dull, grey-green to strongly glaucous, obovate to orbicular, usually rounded (mostly not retuse), 2.0–4.0 cm long, 15–30 mm wide; petioles 5–8 mm long; lateral veins regular, moderately spaced, at 40–50° to midrib; intramarginal vein distinct, more or less looped, 1–3 mm from margin; oil glands angular. *Inflorescences* simple, axillary; umbellasters 7-flowered; peduncles 9–14 mm long; pedicels 6–8 mm long. *Buds* ovoid to fusiform, 15–18 mm long, 5–6 mm diam.; calyptra elongate-conical, more than 3 times as long as hypanthium. *Stamens* all fertile; filaments slender, irregularly flexed and erect; anthers ovoid, dorsifixed near base of connective gland, versatile, dehiscing through lateral pores. *Fruits* hemispherical to flattened hemispherical, 6–7 mm long, 9–10 mm diam.; calyptra and stemonophore scars raised at c. 45°; disc flat to slightly raised, 2.5–3.5 mm wide. *Seeds* grey-brown, ovoid, shallowly regularly pitted; chaff red-brown. Figure 36.

Distinguished within the *E. orbifolia* group by the long, conical calyptra, and longer leaves.

DISTRIBUTION: Known only from The Dromedaries. Figure 37.

ECOLOGY: Restricted to scleromorphic shrubland on shallow gritty sand over granite.

CONSERVATION STATUS: 2R-. Known only from the type locality, which is in a remote and relatively undisturbed area.

The epithet is from the Latin *eductus*, drawn out, referring to the long calyptra.

SPECIMENS EXAMINED: WESTERN AUSTRALIA: Gillian Rock, N of Beacon, *Hill 2512, Johnson & Blaxell*, 16 Nov 1986 (NSW, PERTH); *Brooker 8494*, 16 Mar 1984 (CANB, NSW, PERTH).

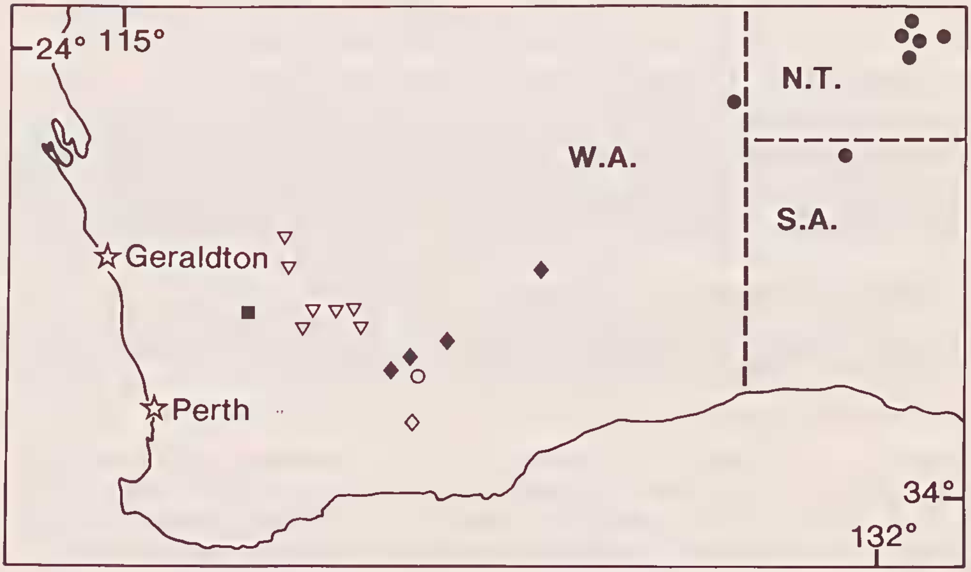

Figure 37. Distribution of *E. websteriana* subsp. *websteriana* (◆), subsp. *norsemanica* (◇), subsp. *websteriana* – subsp. *norsemanica* intergrades (○), *E. lata* (▽), *E. educta* (■) and *E. orbifolia* (●).

32. Eucalyptus lata *L. Johnson & K. Hill*, **sp. nov.**

Inter species affinitatis *E. orbifoliae* combinatione sequenti characterum distinguitur: folia adulta lata, pedicelli breves, calyptra breviter conica, et fructus magni.

Type: Western Australia: 13.6 km W of Callion on Mussons Soak road, *K.D. Hill 2658 & L.A.S. Johnson*, 28 Nov 1986 (holo NSW; iso CANB, CBG, MEL, PERTH).

Mallee to 3 m, of twisted and spreading habit. *Bark* red-brown, splitting longitudinally and peeling partly back to reveal green to brown smooth bark ('minniritchi' bark). *Branchlets* strongly glaucous. Juvenile leaves disjunct, petiolate, ovate to orbicular. *Adult leaves* disjunct, dull, grey-green, orbicular, regularly retuse, 2.5–5.0 cm long, 25–50 mm wide; petioles 8–27 mm long; lateral veins regular, moderately spaced, at 40–50° to midrib; intramarginal vein distinct, more or less looped, 1–4 mm from margin; oil glands angular. Inflorescences simple, axillary; umbellasters 7-flowered; peduncles 5–29 mm long; pedicels 3–6 mm long. *Buds* ovoid, 10–12 mm long, 8–9 mm diam.; calyptra broadly conical, 1.5–2.5 times as long as hypanthium. *Stamens* all fertile; filaments slender, irregularly flexed and erect; anthers ovoid, dorsifixed near base of connective gland, versatile, dehiscing through lateral pores. *Fruits* flattened obconical, 7–9 mm long, 13–15 mm diam.; calyptra and stemonophore scars raised at c. 45°; disc flat, 3–5 mm wide. *Seeds* grey-brown, ovoid, shallowly regularly pitted; chaff red-brown. Figure 36.

Distinguished within the *E. orbifolia* group by the broad adult leaves with medium to long petioles, the shortly conical calyptra, and the large fruits with short, thick pedicels.

Distribution: Sporadic and localised, from near Youanmi to the Die Hardy Range, and east to near Callion. Figure 37.

Ecology: Restricted to scleromorphic shrublands on shallow sandy soil over granite rocks

Conservation status: Although populations are highly localised, the species is widely scattered over relatively undisturbed country, and not considered to be at risk.

The epithet is from the Latin *latus*, broad, referring to the leaves and fruits.

Selected specimens (from 9 examined): Western Australia (W to E): 23.0 km SW of Youanmi on Paynes Find road, *Hill 2594 & Johnson*, 24 Nov 1986 (NSW, PERTH); Mt Jackson to Lake Barlee, *Fraser*, 24 Feb 1922 (NSW); Pigeon Rock, 89.7 miles [143 km] N of Bullfinch, *Chippendale 358*, 21 Mar 1968 (CANB, NSW); 3.5–4 miles [5.6–6.4 km] W of Lake Giles, *Cooper*, 27 June 1923 (NSW); Hospital Rock, 30 miles [50 km] W of Riverina, *Beard 6519*, 11 Sep 1973 (PERTH, NSW).

33. Eucalyptus orbifolia *F. Muell.*, Fragm. 5: 50 (1865).

Type citation: 'Ad bases montium graniticorum Novae Hollandiae austro-occidentalis interioris, longitudine 119°25', latitudine 30°47'. C. Harper.'

Type: holo MEL; iso K.

Mallee to 3 m, of twisted and spreading habit. *Bark* red-brown, splitting longitudinally and peeling partly back to reveal green to brown smooth bark ('minniritchi' bark). *Branchlets* strongly glaucous. Juvenile leaves disjunct, petiolate, ovate to orbicular, later ones retuse. *Adult leaves* disjunct, dull, strongly glaucous, obovate to orbicular, usually longer than broad, regularly retuse, 2.0–4.5 cm long, 15–40 mm wide; petioles 6–16 mm long; lateral veins regular, moderately spaced, at 40–50° to midrib; intramarginal vein distinct, more or less looped, 1–3 mm from margin; oil glands angular. Inflorescences simple, axillary; umbellasters 7-flowered or rarely 3-flowered; peduncles 8–20 mm long; pedicels 4–10 mm long. *Buds* globular to ovoid, 8–10 mm long, 6–8 mm diam.; calyptra hemispherical, as long as hypanthium or slightly longer. *Stamens* all fertile; filaments slender, irregularly flexed; anthers ovoid, dorsifixed near base of connective gland, versatile, dehiscing through lateral pores. *Fruits* hemispherical to flattened hemispherical, 7–9 mm long, 8–13 mm diam.; calyptra and stemonophore scars raised at c. 45°; disc flat to slightly raised, 3–4 mm wide. *Seeds* grey-brown, ovoid, shallowly regularly pitted; chaff red-brown. Figure 36.

E. orbifolia is described here under a reduced circumscription to allow comparison with segregate taxa described above.

DISTRIBUTION: Sporadic but locally frequent, in ranges of Central Australia; recorded from the Dean Range (Western Australia), Musgrave Range (South Australia) and MacDonnell Range (Northern Territory). Figure 37.

ECOLOGY: Restricted to shallow or skeletal sandy soils on the higher slopes of sandstone ranges.

Hybrids are recorded with *E. sessilis* (Maiden) Blakely.

CONSERVATION STATUS: Widely scattered over relatively undisturbed country, not considered to be at risk.

SELECTED SPECIMENS (from 12 examined): WESTERN AUSTRALIA: S end of Dean Range, *Carolin 6106*, 2 Aug 1967 (NSW). SOUTH AUSTRALIA: upper slopes of Mt Woodroffe, *Symon 2693*, 11 Aug 1962 (AD, NSW). NORTHERN TERRITORY (W to E): Mt Sonder, *Dunlop 2513*, 20 Apr 1972 (DNA, NSW); track to Palm Valley No. 2 gas well, on crest of Krichauff Ra. W of Mt Hermannsburg, *Hill 865, 866, Johnson & Benson*, 11 July 1984 (NSW), *Brooker 5114*, 5 Apr 1976 (CANB, NSW, PERTH); Serpentine Gorge, *Maconochie 1063*, 1 July 1970 (DNA, NSW).

E. orbifolia* x *E. sessilis: NORTHERN TERRITORY: Palm Valley No. 2 gas well, on crest of Krichauff Ra W of Mt Hermannsburg, *Hill 867, Johnson & Benson*, 11 July 1984 (NSW); Serpentine Gorge, *Maconochie 1065*, 1 July 1970 (DNA, NSW).

Acknowledgments

Our colleague in the overall project, Don Blaxell, has contributed helpful discussions on many points and has been involved in the recognition of several of the taxa. Particular thanks are due to Leonie Stanberg, who has provided invaluable assistance through the project and drafted the distribution maps. David Mackay prepared most of the illustrations, and Bob Roden prepared the illustration of *E. mannensis* subsp. *vespertina*. Lani Retter provided much assistance in earlier stages of the investigations. The work was in part supported by grants from the Australian Biological Resources Study and the Royal Botanic Gardens and Domain Trust, which are gratefully acknowledged. A grant from the Royal Botanic Gardens and National Herbarium Research Fund to one of us (LJ) to defray field expenses is also gratefully acknowledged. Dr Surrey Jacobs is thanked for critically reading and commenting on the manuscript. We are grateful to Ian Brooker for useful critical comments.

References

Bentham, G. (1867) *Flora Australiensis*, vol. 3 (L. Reeve: London).

Blakely, W.F. (1934) *A Key to the Eucalypts* (The Worker Trustees: Sydney).

Briggs, J.D. & Leigh, J.H. (1988) *Rare or Threatened Australian Plants*. Australian National Parks and Wildlife Service, Special Publication 14.

Brooker, M.I.H. & Hopper, S.D. (1991) A taxonomic revision of *Eucalyptus wandoo, E. redunca* and allied species (*Eucalyptus* series *Levispermae* Maiden – Myrtaceae) in Western Australia. *Nuytsia* 8(1): 1–189.

Brooker, M.I.H. & Kleinig, D.A. (1990) *Field Guide to Eucalypts* vol 2. (Inkata: Melbourne).

Chippendale, G.M. (1973) *Eucalypts of the Western Australian goldfields* (Australian Government Publishing Service: Canberra).

Chippendale, G.M. (1988) *Eucalyptus, Angophora*. In A.S. George (ed.), *Flora of Australia*, vol. 19 (Australian Government Publishing Service: Canberra).

Crisp, M.D. (1982) *Eucalyptus synandra* (Myrtaceae), a new species of mallee from Western Australia. *Nuytsia* 4(1): 129–134.

Diels, L. & E. Pritzel (1905) Fragmenta phytographiae Australiae occidentalis. *Bot. Jahrb. Syst.* 35: 55–662.

Gardner, C.A. (1960) Trees of Western Australia. *J. Agric. Western Australia* 4th series 1(7): 643–653.

Hall, N. & Johnston, R.D. (1964) *A card key for the identification of eucalypts* (Forestry & Timber Bureau: Canberra)

Johnson, L.A.S. (1972) Evolution and classification in *Eucalyptus. Proc. Linn. Soc. New South Wales* 97: 11–29.

Johnson, L.A.S. & Briggs, B.G. (1984) Myrtales and Myrtaceae – a phylogenetic analysis. *Ann. Missouri Bot. Gard.* 71: 700–756.

Johnson, L.A.S. & Hill, K.D. (1990) New taxa and combinations in *Eucalyptus* (Myrtaceae). *Telopea* 4(1): 37–108.

Johnson, L.A.S. & Hill, K.D. (1991) Systematic studies in the eucalypts 2. A revision of the gimlets and related species, *Eucalyptus* extracodical series *Salubres* and *Annulatae* (Myrtaceae). *Telopea* 4(2): 201–222.

Ladiges, P.Y. (1984) A comparative study of trichomes in *Angophora* Cav. and *Eucalyptus* L'Hérit. *Austral. J. Bot.* 32: 561–574

Luehmann, J.G. (1898) A short dichotomous key to the hitherto known species of *Eucalyptus. Proc. Austral. Assoc. Adv. Sci.* 7: 523–536.

Maiden, J.H. (1903–33) *A Critical Revision of the Genus Eucalyptus* (Govt. Printer: Sydney).

McVaugh, R. (1968) The Genera of American Myrtaceae – an interim report. *Taxon* 17: 354–418.

Mueller, F. (1878) *Fragmenta phytographiae Australiae* 11: 11–12 (Govt. Printer: Melbourne)

Pryor, L.D. & Johnson, L.A.S. (1971) *A Classification of the Eucalypts* (ANU Press: Canberra).

Index

New names and combinations are printed in **boldface**; synonyms are printed in *italics*.

- Eucalyptus section Bisectaria 562
- Eucalyptus series Accedentes 563
  - series Astringentes 572
  - series Cneorifoliae 591
  - series Erythronemae 575
  - series Falcatae 603
  - series Loxophlebae 563
  - series Macrocarpae 617
  - series Occidentales 572
  - series Orbifoliae 625
- Eucalyptus subgenus Symphyomyrtus 562
- Eucalyptus subseries Leptopodosae 617
  - subseries Occidentalosae 572
- Eucalyptus superspecies Orbifolia 625

- Eucalyptus accedens 563
- *E. amygdalina* 567
- *E. angustifolia* 617
- E. angustissima 597
  - subsp. angustissima 597
  - subsp. **quaerenda** 598
- **E. argyphea** 603
- **E. aspratilis** 572

- E. balanites 591
- E. **balanopelex** 605
- E. balladoniensis 614
  - subsp. balladoniensis 615
  - subsp. **sedens** 617
- E. beardiana 623
- **E. blaxellii** 564

- *E. corrugata* 612

- E. decipiens 591
- **E. depauperata** 587

- **E. educta** 627
- *E. elachyphylla* 623
- E. eremophila 584
  - var. *grandiflora* 572
- *E. erythronema* var. *roei* 587

- E. falcata 603
- *E. foecunda* var. *loxophleba* 565
- **E. foliosa** 595

- E. goniantha 609
  - subsp. goniantha 609
  - subsp. **notactites** 610
  - subsp. *semiglobosa* 608
- *E. goniantha* 612
- **E. goniocarpa** 582
- **E. gratiae** 571
- E. grossa 585

- E. incerata 585
- *E. incrassata* var. *goniantha* 609

- E. jutsonii 599

- E. kessellii 612
  - subsp. **eugnosta** 613
  - subsp. kessellii 612
- E. kruseana 571

- E. **lata** 630
- E. leptopoda 617
  - subsp. **arctata** 621
  - subsp. **elevata** 620
  - subsp. leptopoda 618
  - subsp. **subluta** 621

E. loxophleba 565
    subsp. lissophloia 569
    subsp. loxophleba 567
    subsp. supralaevis 568
    subsp. *gratiae* 571
    var. *fruticosa* 568

E. mannensis 599
    subsp. mannensis 599
    subsp. **vespertina** 600
E. **misella** 593

E. occidentalis 573
    var. *eremophila* 584
    var. *grandiflora* 572
    var. *stenantha* 572
E. orbifolia 630
E. ornata 604

E. **phylacis** 591
E. **pruiniramis** 563

E. **recta** 604
E. **rosacea** 623

E. sargentii 573
    subsp. sargentii 574
    subsp. **fallens** 575
E. **semiglobosa** 608
E. sessilis 631
E. spathulata 575
    subsp. *grandiflora* 580
    var. *grandiflora* 580
E. **suggrandis** 580
    subsp. **alipes** 581
    subsp. **suggrandis** 581
E. synandra 622

E. **tenera** 586
E. **tephroclada** 586

E. **vegrandis** 577

E. wandoo 568
E. websteriana 626
    subsp. **norsemanica** 627
    subsp. websteriana 627

E. xanthonema 579

Manuscript received 5 December 1990
Manuscript accepted 5 June 1991

New species, lectotypes and synonyms of Australasian *Nymphaea* (Nymphaeaceae)

S.W.L. Jacobs

Abstract

Jacobs, S.W.L. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, NSW, Australia 2000) 1991. New species, lectotypes and synonyms of Australasian Nymphaea *(Nymphaeaceae).* Telopea *4(4): 635-641.* As a precursor to the forthcoming treatment of Nymphaeaceae for the 'Flora of Australia', *Nymphaea elleniae, N. atrans, N. immutabilis* and *N. immutabilis* subsp. *kimberleyensis* are described as new taxa; lectotypes are chosen for *N. violacea* and some of its synonyms, namely *N. violacea* var. *caerulea, N. holtzei, N. rehneltiana* and *N. casparyi; N. dictyophlebia* is placed as a synonym under *N. macrosperma;* and some other names are discussed.

Introduction

The following descriptions, lectotypifications, and discussion are provided as precursors to the treatment of Nymphaeaceae for the 'Flora of Australia'. Only those aspects necessary for that treatment are discussed here; it is planned to produce a fuller account on other aspects soon. This fuller account will include scanning electron micrographs of the seeds of at least all the native species.

New species

Nymphaea elleniae *S.W.L. Jacobs*, sp. nov.

N. violaceae affinis sed filamentis antherarum brevioribus, sepalis brevioribus, floribus semper candidis, floribus foliisque plerumque minoribus, differt.

TYPE: QUEENSLAND: Jardine River, 11° 09' S 142° 20' E, *S. Jacobs 5450 & J. Clarkson*, 6 Aug 1987 (holo NSW; iso BRI).

Perennial with vertical elongated rhizome. Juvenile submerged leaf blades often retained for several years, sagittate, usually red; mature blade to 22 cm long, 18 cm wide, undersurface often red, especially toward the margin, margins entire to slightly sinuate. Flowers to 20 cm above the water surface. Sepals 4, to 7 cm long, green outside with purple flecks; margins membranous, white; tip acute or occasionally obtuse. Petals to 25, grading into the stamens, lanceolate, white; tip acute to obtuse. Stamens to c. 100; filaments membranous, to 18 mm long; anthers to 8.5 mm long, sometimes slightly apiculate. Ovary lobed; carpels 11–22; fruit globose, c. 2.5 cm diam., with numerous seeds; seeds elliptical, c. 1.75–2.5 mm long, c. 1–1.5 mm diam., glabrous; cells of the testa having a small lumen, occasionally raised relative to the arms, with arms of unequal length, ends neither expanded nor raised.

On Cape York in and north of the Jardine River, Queensland; also in New Guinea. Growing in more or less permanent water to 5 m deep, flowering ?April toDecember. Flowers open all day, closing at night.

This species is very similar to *N. hastifolia* Domin but, unlike that species, *N. elleniae* grows in more permanent water and usually does not start flowering until after *N. hastifolia* has finished. There is also a difference in the seeds: the cells of the testa appear to have a 'double wall' in *N. hastifolia* with the appearance of an extra line in scanning electron micrographs of the seed.

N. elleniae differs from *N. violacea* in always being white-flowered, having shorter filaments, and the flowers and leaves being generally smaller; *N. elleniae* also often retains its juvenile leaves for much longer.

Named after my daughter, Ellen A. Jacobs.

QUEENSLAND: Burster Ck, 10° 55' S 142° 22' E, *Clarkson 6185*, Aug 1985 (BRI, NSW); c. 20 km W of Karwah Lagoon, 13° 44' S 141° 54' E, *Clarkson 4568*, Oct 1982 (BRI); Skull Ck, 10° 55' S 142° 22' E, *Jacobs 5458 & Clarkson*, Aug 1987 (NSW). PAPUA NEW GUINEA: Western Province: Pongarihi, c. 30 km E of Morehead, road to Arufi, 8° 40' S, 141° 50' E, *Jacobs 5959 & Conn*, Sept 1990 (NSW, LAE, UPNG); Seki village, N of Morehead 8° 21' S 141° 54' E, *Jacobs 5978 & Conn*, Sept 1990 (NSW, LAE, UPNG).

Nymphaea atrans *S.W.L. Jacobs*, **sp. nov.**

N. giganteae affinis sed floribus fructibusque ad maturitatem vinosis, basi vaginanti petioli latiora, differt.

TYPE: QUEENSLAND: c. 10 km N of Wakooka, Bathurst Bay road, c. 14° 28' S 144° 33' E, *S. Jacobs 5398 & J. Clarkson*, 31 July 1987 (holo NSW; iso BRI).

Perennial with a short vertical swollen rhizome. Petiole base winged; mature leaf blade to c. 40 cm diam.; margins toothed with few regularly-spaced teeth to 2 mm long. Flowers to 40 cm above the water surface. Sepals 4, to 8 cm long, green outside with purple streaks, darkening to maroon with age; the margins membranous, light pink when young and progressively darkening to maroon with age; tip obtuse. Petals to 33, with a gap between petals and stamens, oblanceolate, white with pink tinge, becoming darker with age; tip obtuse. Stamens to c. 300, filaments membranous to cylindrical, to 14 mm long; anthers to 10 mm long, usually with a small hooked apical appendage. Ovary lobed; carpels 10 to 15; fruit globose, c. 4 cm diam., with numerous seeds; seeds elliptical, c. 4 mm long, c. 2.5 mm diam. with discontinuous or disorganised rows of very short hairs; cells of the testa having an elongated lumen with arms of equal length, the ends usually expanded but not raised.

Cape York, Queensland, in Lakefield National Park and its vicinity. Billabongs, lakes and old pastoral dams on floodplains. Flowering ?July to November; flowers open during the morning (and at night?).

Similar to other species in the '*gigantea*' group but differing in the apparent night-flowering, the more developed sheathing base of the petiole, and the petals and sepals darkening with age. The sepals, as well as the fruit, become almost deep maroon as the fruit is drawn beneath the surface. The hairs on the seed are shorter than those on other species in this group. *N. atrans* hybridises with *N. immutabilis* and the hybrids are obvious from the pink older flowers, the flowers of the hybrid never becoming as dark as those of *N. atrans*. The hybrids, unlike both parent species, do not have a good seed-set.

Named from the Latin *atrans*, meaning darkening, referring to the flower darkening with maturity.

QUEENSLAND: Romeo Lagoon, Lakefield National Park, 15° 09' S 144° 15' E, *Jacobs 5414 & Clarkson*, Aug 1987 (NSW, BRI); Low Lake, Lakefield National Park, 14° 38' S 144° 55' E, *Jacobs 5442 & Clarkson*, Aug 1987 (NSW, BRI); 'Bizant', Lakefield National Park, 14° 41' S 144° 12' E, *Williams 85259*, Oct 1985 (BRI).

Nymphaea immutabilis *S.W.L. Jacobs*, **sp. nov.**

N. giganteae affinis sed antheris longioribus, petalis ad maturitatem nonpallescentibus, ciliis seminum seriatum dispositis sed minus ordinatis, differt.

TYPE: QUEENSLAND: c. 1 km SW of Emerald Ck, nr Mareeba, 17° 01' S 145° 30' E, *S. Jacobs 5338 & J. Clarkson*, 26 July 1987 (holo NSW; iso BRI).

Annual or perennial with vertical globular rhizome. Mature leaf blade to c. 70 cm diam.; margins toothed with regularly-spaced teeth to 4.5 mm long. Flowers to 50 cm above the water surface. Sepals 4, to 12.5 cm long, green on the outside with purple flecks; margins membranous and coloured as the outer petals; tip obtuse. Petals to 34, with a gap between petals and stamens, oblanceolate to spathulate, white, sometimes with a blue tinge, or blue, usually not fading with age; tip obtuse. Stamens to c. 400; filaments membranous to cylindrical, to 32 mm long; anthers to 15 mm long, often apiculate. Ovary lobed; carpels 9 to 20; fruit globose, c. 5 cm diam., with numerous seeds; seeds elliptical, c. 4 mm long, c. 2.5 mm diam., with discontinuous or disorganised rows of short, sparse to dense, sometimes almost scattered, hairs, rarely glabrous; cells of the testa having an elongated lumen with arms of equal to unequal length, ends sometimes slightly expanded but not raised.

Widespread in the monsoonal parts of the Australian tropics from the Kimberley, Western Australia to about the Tropic of Capricorn in coastal Queensland. In permanent or ephemeral waterholes. Flowering March to November; flowers open during the day and close at night.

At various times this species has been included in *N. gigantea* or incorrectly known as *N. dictyophlebia* (a synonym of *N. macrosperma*, see below). The distributions of *N. gigantea* and *N. immutabilis* overlap around Rockhampton on the Queensland coast and specimens from this area can be difficult to identify unless collected with seeds, information on flower colour, and whether there is any sign of petal colour fading with maturity. There is presumably some intergradation between the two species in this area.

From the Latin *immutabilis*, not changing, referring to the petals, which usually do not change colour with maturity in this species, unlike *N. gigantea* where those flowers that are originally coloured usually fade, or *N. atrans* where they darken.

There are two subspecies.

1 Petals mostly white, outer whorls often tinged blue, or the petals all white or all blue, not fading with age; sepals to 10.5 cm long; stamens to c. 400; anthers without a gland at the base; leaf blade margin with teeth to 4.5 mm long; carpels 9–19; seeds pubescent .... subsp. **immutabilis**

1* Petals blue with white at base, fading slightly with age; sepals to 12.5 cm long; stamens to c. 200; anthers with purple gland at base; blade margin with teeth to 3 mm long; carpels 15–20; seeds apparently glabrous .... subsp. **kimberleyensis**

Nymphaea immutabilis *S.W.L. Jacobs* subsp. **immutabilis**

N. lotus var. *australis* Bailey (1899: 38)

Lectotype (here designated): Queensland: Kamerunga, Barron R., *E. Cowley 7*, Aug 1891 (BRI).

In the work cited above, Bailey refers the publication of his variety to an earlier work (Bailey 1883); however, while the 1883 publication mentions a variety it offers neither name nor specimen. The name first appears in Bailey (1899) with a somewhat vague specimen citation 'Hab.: Still waters off the Barron River.' The specimen at BRI is clearly labelled by Bailey.

Rhizome swollen and vertical, usually less than 8 cm long. Mature leaf blade with teeth to 4.5 mm long on margin. Sepals to 10.5 cm long. Petals white, with outer whorls often tinged blue, less commonly the petals all white or all blue, not fading with age. Stamens to c. 400; filaments to 28 mm long; anthers to 15 mm long, without a gland at the base. Carpels 9 to 19; fruit globose, c. 5 cm diam.; seeds with discontinuous or disorganised rows of short hairs that sometimes almost appear scattered.

Distribution, habitat, flowering months and flowering times as given for the species.

Western Australia: 'Mt House', E of Derby, 17° 12' S 126° 15' E, *Jacobs 4334*, May 1982 (NSW). Northern Territory: 'Singleton' Station, 20° 48' S 134° 16' E, *Henshall 1047*, June 1975 (MEL). Queensland: Normanton to Karumba road between Normanton and Maggieville, 17°03' S 141° 00' E, *Clarkson 2697*, Nov 1979 (BRI); 'Westmoreland' homestead lagoon, 17° 16' S 138° 15' E, *Jacobs 1551*, May 1974 (NSW); Camooweal, 19° 35' S 138° 07' E, *Jacobs 5531 & P. Wilson*, May 1988 (NSW).

Nymphaea immutabilis subsp. **kimberleyensis** *S.W.L. Jacobs*, **subsp. nov.**

Subsp. *immutabili* affinis sed petalis plerumque ad imum candidis apicem versus violaceis, sepalis longioribus, staminibus paucioribus, differt.

Type: Western Australia: Kimberley region, *S. Jacobs 5706 & P. Wilson* 23 May 1988 (holo NSW; iso PERTH).

Rhizome swollen and vertical, to 12 cm long. Mature leaf blade with teeth to 3 mm long on margin. Sepals to 12.5 cm long. Petals blue with white at base, fading slightly with age. Stamens to c. 200; filaments to 32 mm long; anthers to 13 mm long, with a purple gland at the base of the anther. Carpels 15 to 20; only immature seeds seen, apparently glabrous.

Known from only one population in the Kimberley, from a lagoon that dries out each year. Flowers open during the day and presumably close at night; flowering from ?March to June. Because of the apparent rarity of this subspecies I have not published precise locality information although this information has been passed on to relevant Government conservation authorities.

Western Australia: Kimberley region, *Jacobs 5707 & P. Wilson*, 23 May 1988 (NSW).

Nymphaea violacea and synonyms

Nymphaea violacea Lehm. (1853: 218).

N. gigantea var. *violacea* (Lehm.) Conard (1905: 130–131)

LECTOTYPE (here designated): QUEENSLAND: Cape York, *Macgillivray Voyage of Rattlesnake, Bot. 410*, 10 October 1848 (K).

N. violacea var. *caerulea* Lehm. (1853: 218), as 'coerulea'.

LECTOTYPE (here designated): QUEENSLAND: Cape York, *Macgillivray Voyage of the Rattlesnake, Bot. 410 β*, 27 October 1849 (lecto K; isolecto B).

Lehmann (1853) described two varieties of *N. violacea*, the type variety as α and var. *caerulea* as β. He cited only one specimen from Macgillivray as the type for β and two specimens for α, one collected by Macgillivray and one by Anderson. I have been unable to find any specimens collected by Anderson but found both specimens from Macgillivray clearly labelled at K and a duplicate of one of these at B. Lehmann's herbarium was dispersed after his death, the Nymphaeaceae being purchased by Caspary (Nordenstam 1980). Caspary's herbarium was mostly deposited at B where many specimens were destroyed during World War II, but there are some duplicates at K (Stafleu & Cowan 1976). A search at B revealed a Macgillivray specimen of β that had been damaged by insects, and a substantial collection of Caspary's 'hybrids'. The hybrids were derived from artificially pollinated specimens of what, at that time, were regarded as separate species; nearly all of the parents are now treated by Verdcourt (1989) as synonyms of *N. nouchali* Burm. f. The label of the Macgillivray specimen at B has been altered in an attempt to change the collection date from that for β to that of α, presumably in ignorance of there having been two specimens from the same 'locality' at different dates. Royen (1962) cites the Anderson collection as being in HBG. A search there failed to locate any Australian *Nymphaea* specimens, although there are Anderson collections in other families; there seems no evidence of Caspary's herbarium in HBG. The two specimens at K are in good condition, have the advantage of being in the same herbarium, have been seen and annotated by Lehmann, do not seem to have had their labels altered, and match their relevant descriptions. I am therefore choosing these specimens as lectotypes for Lehmann's two varieties of *N. violacea*.

N. holtzei Rehnelt & Henkel ex Henkel, Rehnelt & Dittman (1907: 67).

TYPE CITATION: 'Gesammelt von Direktor M. Holtze auf den Melville-Inselen, 40 engl. Meilen von Port Darwin'.

LECTOTYPE (here designated): Lefthand figure accompanying the description (Henkel et al. 1907: 67).

I have been unable to find a Holtze specimen labelled with these details. If one existed it was possibly destroyed in B. There are two unnumbered figures accompanying the description. The unnumbered figure on the left is clearly *N. violacea*. *N. stellata* F. Muell. (non Willd.) is a *nomen nudum* cited as a synonym of *N. holtzei* in the protologue, and Mueller used his name for what is now recognized as *N. violacea*. The description of *N. holtzei* is a good match for *N. violacea*. I here designate the lefthand figure accompanying the description on p. 67 as the lectotype. The unnumbered figure on the right is of the tubers and could belong to a young plant of nearly any Australian species.

N. holtzei var. *albiflora* Rehnelt & Henkel ex Henkel, Rehnelt & Dittman (1907: 67).

Type citation: 'Eleonorae hort.'

The distinguishing feature of this variety, 'Floribus niveis' is added after the diagnostic description of the species. Flower colour alone is an unreliable character for distinguishing species of *Nymphaea*; this variety *albiflora* presumably consists of common white-flowered plants of *N. violacea*. There is no indication of any specimen or drawing that could be used in lectotypification.

N. rehneltiana Henkel (1910: 154–156).

Lectotype (here designated): Fig. 11 on p. 155 of the protologue.

There is no indication in the original description of a specimen existing other than the statement that the species was cultivated at the Botanic Garden in Giessen. The description matches *N. violacea* and there is an awkward but perfectly adequate and diagnostic drawing in the protologue that I now select as the lectotype.

N. casparyi Rehnelt & Henkel ex Henkel, Rehnelt & Dittman (1907: 66) nom. illeg.; non *N. casparyi* Carrière (1879).

Type citation: 'Im Herbar Kew liegen Blätter von ihr, gesammelt von Ferd. v. Müller, bezeichnet als versicolor, repanda und serrata. Eines derselben ist mit Banksii Cunn. bezeichnet.'

Lectotype (here designated): 'N. repanda', Head of Sturts Creek, *F. Mueller* (K).

Although it is not necessary to lectotypify illegitimate names there is some value in doing so for this case. Rehnelt and Henkel's name has been used in the literature, sometimes cited as a *nom. illeg.*, and the unnumbered drawing with the protologue has also been referred to. The problem springs from their name being based on collections of two different species. There are four specimens listed by Rehnelt and Henkel, all from K; three of the specimens have been labelled by Mueller as either 'versicolor', 'repanda' or 'serrata' and one labelled as 'banksii' by Allan Cunningham. All the names are *nomina nuda*; the specimens labelled *versicolor*, *repanda*, and *banksii* are all *N. violacea* and the specimen labelled *serrata* belongs to a species near *N. gigantea* Hook., possibly *N. macrosperma*. The figure with the type description is a composite of the two species, as is the description. In order to reduce confusion I have selected as lectotype the specimen designated above.

New synonym

Nymphaea macrosperma Merrill & Perry (1942: 389).

Type: Papua New Guinea: Lake Daviumbu, Middle Fly River, *L. Brass 7608*, Aug 1936 (holo A; iso BM, BRI).

N. dictyophlebia Merrill & Perry (1942: 390), syn. nov.

TYPE: PAPUA NEW GUINEA: Penzara, between Morehead and Wassi Kussa Rivers, *L. Brass 8437*, Dec 1936 (holo A; iso BM, BRI).

The names *Nymphaea macrosperma* and *Nymphaea dictyophlebia* were both published in the same paper but are referable to the same species. Understandably there has been some confusion in the application of these names although *N. macrosperma* has been used correctly more frequently than *N. dictyophlebia*, the latter name sometimes being used for the species described here as *N. immutabilis*. To minimise changes to current usage I have selected *N. macrosperma* as the name for this taxon.

Acknowledgments

Many thanks to Geoff Sainty, John Clarkson and Ian Cowie who, among others, were effective crocodile decoys and collectors of valuable specimens. Thanks also to Carolyn Porter and Sue Chambers for invaluable technical assistance, Joy Everett, Roger Carolin and Helen Aston for their comments on the manuscript, Terry Macfarlane and Greg Leach for help while Australian Botanical Liaison Officers, Karen Wilson for the Latin diagnoses and help while Liaison Officer, and to The Royal Geographical Society and The Linnean Society of London for supporting my participation in the Kimberley Research Project, 1988.

References

Bailey, F.M. (1883) *A synopsis of the Queensland flora*. (Government Printer: Brisbane).

Bailey, F.M. (1899) *The Queensland Flora*, part 1. (H.J. Diddams & Co.: Brisbane).

Carrière, E.A. (1879) *Nymphaea caspary. Revue Horticole*: 230 (not seen, quoted in Conard 1905).

Conard, H.S. (1905) *The waterlilies*. (Carnegie Institute: Washington).

Henkel, von F., Rehnelt, F. & Dittman, L. (1907) *Das Buch der Nymphaeaceen oder Seerosengewäschse* (Darmstadt).

Henkel, von F. (1910) *Nymphaea Rehneltiana* Henkel, species nova. *Gartenflora, Zeitschrift fur Garten- und Blumenkunde* 59: 154–156.

Lehmann, C. (1853) Ueber die Gattung *Nymphaea*. *Hamburger Garten- und Blumenzeitung* 9: 193–218.

Merrill, E.D. & Perry, L.M. (1942) Plantae Papuanae Archboldianae X. *Journal of the Arnold Arboretum* 23: 383–416.

Nordenstam, B. (1980) The herbaria of Lehmann and Sonder in Stockholm, with special reference to the Ecklon and Zeyher collection. *Taxon* 29: 279–291.

Royen, P. van (1962) Sertulum Papuanum 5, Nymphaeaceae. *Nova Guinea* 8: 103–126.

Stafleu, F.A., & Cowan, R.S. (1976) *Taxonomic Literature*, edn 2, vol. 1: A–G. (Bohn, Scheltema & Holkema: Utrecht).

Verdcourt, B. (1989) Nymphaeaceae. Pp. 1–12 in R.M. Polhill, (ed.), *Flora of Tropical East Africa* (A.A. Balkema: Rotterdam).

Manuscript received 29 May 1991

Manuscript accepted 5 September 1991

ERYTHROXYLACEAE

826 **Erythroxylum cuneatum** (Miq.) Kurz; Burkill, Dict. (1935) 950; Corner, Ways. Trees 1st ed. (1940) 220; Payens, Fl. Males. I 5^4 (1958) 548; Cockburn, Tree Fl. Malaya 1 (1972) 194; Corner, Ways. Trees, 3rd ed. (1988) 255; Keng, Conc. Fl. Sing. (1990) 94; — *E. burmanicum* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 324.

EUPHORBIACEAE

827 **Acalypha boehmerioides** Miq.; Sinclair, Gard. Bull. Sing. 14 (1953) 35.

828 **Acalypha indica** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140; Ridley, Fl. Mal. Pen. 3 (1924) 274; Whitmore, Tree Fl. Malaya 2 (1973) 51; Keng, Conc. Fl. Sing. (1990) 105.

829 **Actephila excelsa** (Dalz.) M.A. *var.* **javanica** (Miq.) P. & H.; Whitmore, Tree Fl. Malaya 2 (1973) 52; Keng, Conc. Fl. Sing. (1990) 106; — *A. excelsa*; Ridley, Fl. Mal. Pen. 3 (1924) 196; — *A. javanica* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 135; Ridley, Fl. Mal. Pen. 3 (1924) 196.

830 **Agrostistachys gaudichaudii** M.A.; Ridley, Fl. Mal. Pen. 3 (1924) 268; Whitmore, Tree Fl. Malaya 2 (1973) 57; — *A. filipendula* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140.

831 **Agrostistachys longifolia** (Wight) Benth. *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140 (*var. malayana* Hook. *f.*); Whitmore, Tree Fl. Malaya 2 (1973) 53; Corner, Ways. Trees, 3rd ed. (1988) 264; Keng, Conc. Fl. Sing. (1990) 106; — *A. borneensis* Becc.; Ridley, Fl. Mal. Pen. 3 (1924) 268; — *A. sessilifolia* (Kurz) P. & H.; Ridley, Fl. Mal. Pen. 3 (1924) 267; Corner, Ways. Trees 1st ed. (1940) 229; Corner, Ways. Trees, 3rd ed. (1988) 264.

832 **Alchornea rugosa** (Lour.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 141; Whitmore, Tree Fl. Malaya 2 (1973) 53; Keng, Conc. Fl. Sing. (1990) 106; — *A. javensis* (Endl. *ex* Hassk.) M.A.; Ridley, Fl. Mal. Pen. 3 (1924) 278.

833 **Alchornea villosa** (Benth.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 141; Ridley, Fl. Mal. Pen. 3 (1924) 277; Whitmore, Tree Fl. Malaya 2 (1973) 54; Corner, Ways. Trees, 3rd ed. (1988) 265; Keng, Conc. Fl. Sing. (1990) 106.

834 **Antidesma coriaceum** Tul.; Ridley, Fl. Mal. Pen. 3 (1924) 233; Whitmore, Tree Fl. Malaya 2 (1973) 57; Keng, Conc. Fl. Sing. (1990) 106; — *A. fallax* M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; — *Embelia lucida* Wall. *ex* A. DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 104.

835 **Antidesma cuspidatum** M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 232; Whitmore, Tree Fl. Malaya 2 (1973) 58; Keng, Conc. Fl. Sing. (1990) 106.

836 **Antidesma neurocarpum** Miq.; Whitmore, Tree Fl. Malaya 2 (1973) 57; Corner, Ways. Trees, 3rd ed. (1988) 269; Keng, Conc. Fl. Sing. (1990) 106; — *A. alatum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 227; Corner, Ways. Trees 1st ed. (1940) 232.

New species of *Plectranthus* and *Westringia* (Labiatae) from New South Wales

Barry J. Conn

Abstract

Conn, Barry J. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, Australia 2000). New species of Plectranthus *and* Westringia *(Labiatae) from New South Wales.* Telopea *4(4): 643–648 . Plectranthus cremnus* and *Westringia kydrensis* from eastern New South Wales are described.

Introduction

During the preparation of an account of the labiates (Lamiaceae) for the 'Flora of New South Wales' project, two undescribed species were discovered. Although the conservation status is unknown, both appear to be rare and possibly vulnerable. The publication of these two names will enable the species to be formally recognized by the appropriate management authorities.

Terminology and presentation follows that used in Conn (1984 & 1987).

Taxonomy

Plectranthus cremnus *Conn*, **sp. nov.**

Type: New South Wales: Sawtell area, *Conn 3478*, 20 February 1990 (holo NSW 224791; iso MEL).

Herba prostrata usque decumbens. *Rami et ramuli* basi subteretes, apicem versus quadrangulatum, moderate usque dense tomentosi, pilis albis brevibus etiam pilis longissimis multicellularibus patentibus eglanduligeris. *Folia* decussata, moderate usque dense tomentosa; *petiolus* 15–20 mm longus; *lamina* depresse ovata usque latissime ovata, 35–40 mm longa, 45–50 mm lata, basi subtruncata, margine bicrenata, apice obtuso usque rotundato. *Verticillastri* quinqueflori. *Bracteae* late ovatae, 1.5–1.6 mm longae, 1.5–1.6 mm latae, deciduae. *Pedicellus floris* 3.5–5 mm longus. *Calyx* marroninus vel in partibus viridis, extra sparsim usque moderate tomentosus, intra glaber; *tubus* circa 0.4 mm longus; *lobus abaxiali–medianus* circa 1 mm longis, apice profunde diviso; *lobi laterales* late deltoidei, 0.6–0.8 mm longi; *par loborum adaxiali–medianorum* latissime obovatum usque transverse late ellipticum, circa 0.6 mm longum. *Corolla* 6 mm longa, lobis indicis, extra in partibus sparsim tomentosa,intra glaber; *tubus* 4.4 mm longus, leviter curvus; *lobus abaxiali-medianus* transverse late ellipticus usque circularis, circa 4.5 mm longus; *lobi laterales* oblique deltoidei, 1–1.3mm longi; *par loborum adaxiali-medianum* transverse truncato-ellipticum, circa 2 mm longum, apice profunde diviso. *Filamenta staminum* 3.5–4.5 mm longa; antherae circa 0.4 mm longae. *Ovarium* 0.2–0.3 mm longum; *stylus* 7.5–8.2 mm longus; *stigma* 0.6–0.8 mm longa. *Mericarpia* compresso–globularia, 0.8–1 mm diametro, latitudine non nisi 0.5–0.6 mm lata; calyx fructifer accrescens.

850 **Baccaurea bracteata** M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 246; Whitmore, Tree Fl. Malaya 2 (1973) 67; Corner, Ways. Trees, 3rd ed. (1988) 275; Keng, Conc. Fl. Sing. (1990) 107.

851 **Baccaurea griffithii** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 248; Whitmore, Tree Fl. Malaya 2 (1973) 66; Keng, Conc. Fl. Sing. (1990) 107.

852 **Baccaurea hookeri** Gage; Ridley, Fl. Mal. Pen. 3 (1924) 247; Whitmore, Tree Fl. Malaya 2 (1973) 67; Keng, Conc. Fl. Sing. (1990) 107; — *Baccaurea sp. B*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138.

853 **Baccaurea kunstleri** King *ex* Gage; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 248; Whitmore, Tree Fl. Malaya 2 (1973) 65; Keng, Conc. Fl. Sing. (1990) 107.

854 **Baccaurea lanceolata** (Miq.) M.A.; Ridley, Fl. Mal. Pen. 3 (1924) 248; Whitmore, Tree Fl. Malaya 2 (1973) 65; Corner, Ways. Trees, 3rd ed. (1988) 276; Keng, Conc. Fl. Sing. (1990) 107.

855 **Baccaurea latifolia** King *ex* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 249; Whitmore, Tree Fl. Malaya 2 (1973) 67.

856 **Baccaurea macrophylla** (M.A.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 247; Whitmore, Tree Fl. Malaya 2 (1973) 66; Keng, Conc. Fl. Sing. (1990) 107.

857 **Baccaurea maingayi** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 246; Whitmore, Tree Fl. Malaya 2 (1973) 65; Keng, Conc. Fl. Sing. (1990) 107.

858 **Baccaurea minor** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 245; Whitmore, Tree Fl. Malaya 2 (1973) 66; Keng, Conc. Fl. Sing. (1990) 107.

859 **Baccaurea motleyana** (M.A.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 250; Whitmore, Tree Fl. Malaya 2 (1973) 66; Corner, Ways. Trees, 3rd ed. (1988) 277; Keng, Conc. Fl. Sing. (1990) 107.

860 **Baccaurea parviflora** (M.A.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 138; Ridley, Fl. Mal. Pen. 3 (1924) 243; Whitmore, Tree Fl. Malaya 2 (1973) 64; Corner, Ways. Trees, 3rd ed. (1988) 277; Keng, Conc. Fl. Sing. (1990) 107; — *B. scortechinii* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 244; Corner, Ways. Trees 1st ed. (1940) 242; Corner, Ways. Trees, 3rd ed. (1988) 278.

861 **Baccaurea pyriformis** Gage; Ridley, Fl. Mal. Pen. 3 (1924) 249; Whitmore, Tree Fl. Malaya 2 (1973) 67; Corner, Ways. Trees, 3rd ed. (1988) 277; Keng, Conc. Fl. Sing. (1990) 107.

862 **Baccaurea racemosa** (Reinw.) M.A.; Whitmore, Tree Fl. Malaya 2 (1973) 64; Keng, Conc. Fl. Sing. (1990) 107; — *B. wallichii* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 245.

863 **Baccaurea reticulata** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 246; Whitmore, Tree Fl. Malaya 2 (1973) 67; Corner, Ways. Trees, 3rd ed. (1988) 278; Keng, Conc. Fl. Sing. (1990) 107.

864 **Baccaurea sumatrana** (Miq.) M.A.; Whitmore, Tree Fl. Malaya 2 (1973) 65; Keng, Conc. Fl. Sing. (1990) 107; — *B. kingii* Gage; Ridley, Fl. Mal. Pen. 3 (1924) 245.

865 **Blumeodendron tokbrai** (Bl.) Kurz; Whitmore, Tree Fl. Malaya 2 (1973) 71; Airy Shaw, Euphorbs of Borneo (1975) 60; Keng, Conc. Fl. Sing. (1990) 107; — *Mallotus vernicosus* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 141; — *B. vernicosum* (Hook. *f.*) Gage; Ridley, Fl. Mal. Pen. 3 (1924) 282.

866 **Breynia coronata** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 218; Whitmore, Tree Fl. Malaya 2 (1973) 73; Corner, Ways. Trees, 3rd ed. (1988) 318; Keng, Conc. Fl. Sing. (1990) 108.

867 **Breynia discigera** M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 217; Whitmore, Tree Fl. Malaya 2 (1973) 73; Corner, Ways. Trees, 3rd ed. (1988) 318; Keng, Conc. Fl. Sing. (1990) 108.

868 **Breynia reclinata** (Roxb.) Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 219; Whitmore, Tree Fl. Malaya 2 (1973) 73; Corner, Ways. Trees, 3rd ed. (1988) 318; Keng, Conc. Fl. Sing. (1990) 108.

869 **Breynia vitis-idaea** (Burm. *f.*) C.E.C. Fisch.; Whitmore, Tree Fl. Malaya 2 (1973) 73; Keng, Conc. Fl. Sing. (1990) 108; — *B. rhamnoides* (Retz.) M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 218; — *B. keithii* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 219.

870 **Bridelia cinnamomea** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 185; Whitmore, Tree Fl. Malaya 2 (1973) 74.

871 **Bridelia griffithii** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 185; Whitmore, Tree Fl. Malaya 2 (1973) 75.

872 **Bridelia pustulata** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 135; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 90; Ridley, Fl. Mal. Pen. 3 (1924) 185; Whitmore, Tree Fl. Malaya 2 (1973) 74; Keng, Conc. Fl. Sing. (1990) 108.

873 **Bridelia stipularis** (L.) Bl.; Ridley, Fl. Mal. Pen. 3 (1924) 183; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 90; Whitmore, Tree Fl. Malaya 2 (1973) 74; Corner, Ways. Trees, 3rd ed. (1988) 279; Keng, Conc. Fl. Sing. (1990) 108.

874 **Bridelia tomentosa** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 135; Ridley, Fl. Mal. Pen. 3 (1924) 184; Whitmore, Tree Fl. Malaya 2 (1973) 74; Corner, Ways. Trees, 3rd ed. (1988) 280; Keng, Conc. Fl. Sing. (1990) 108.

875 **Cheilosa malayana** (Hook. *f.*) Corner *ex* Airy Shaw; Whitmore, Tree Fl. Malaya 2 (1973) 77; — *Baccaurea malayana* King *ex* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 247.

876 **Claoxylon indicum** (Reinw. *ex* Bl.) Endl. *ex* Hassk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140; Ridley, Fl. Mal. Pen. 3 (1924) 271; Whitmore, Tree Fl. Malaya 2 (1973) 78; Corner, Ways. Trees, 3rd ed. (1988) 282; Keng, Conc. Fl. Sing. (1990) 108.

877 **Claoxylon longifolium** ENDL. *ex* HASSK.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 140 (*var. brachystachys* HOOK. *f.*); RIDLEY, Fl. Mal. Pen. 3 (1924) 272 (*incl. var. brachystachys* HOOK. *f.*); WHITMORE, Tree Fl. Malaya 2 (1973) 79; CORNER, Ways. Trees, 3rd ed. (1988) 282; KENG, Conc. Fl. Sing. (1990) 108.

878 **Cleistanthus hirsutulus** HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 135; RIDLEY, Fl. Mal. Pen. 3 (1924) 192; WHITMORE, Tree Fl. Malaya 2 (1973) 81; KENG, Conc. Fl. Sing. (1990) 108.

879 **Cleistanthus macrophyllus** HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 135; RIDLEY, Fl. Mal. Pen. 3 (1924) 192; WHITMORE, Tree Fl. Malaya 2 (1973) 81; KENG, Conc. Fl. Sing. (1990) 108.

880 **Cleistanthus malaccensis** HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 189; WHITMORE, Tree Fl. Malaya 2 (1973) 82; KENG, Conc. Fl. Sing. (1990) 108.

881 **Cleistanthus myrianthus** (HASSK.) KURZ; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 135; RIDLEY, Fl. Mal. Pen. 3 (1924) 194; WHITMORE, Tree Fl. Malaya 2 (1973) 82; KENG, Conc. Fl. Sing. (1990) 108.

882 **Cleistanthus sumatranus** (MIQ.) M.A.; RIDLEY, Fl. Mal. Pen. 3 (1924) 192; WHITMORE, Tree Fl. Malaya 2 (1973) 82; KENG, Conc. Fl. Sing. (1990) 108; — *C. laevis* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 135; — *C. heterophyllus* HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 190.

883 **Croton argyratus** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 139; RIDLEY, Fl. Mal. Pen. 3 (1924) 260; WHITMORE, Tree Fl. Malaya 2 (1973) 85; CORNER, Ways. Trees, 3rd ed. (1988) 283; KENG, Conc. Fl. Sing. (1990) 108.

A 884 **Croton bonplandianus** BAILL.; WHITMORE, Tree Fl. Malaya 2 (1973) 84; KENG, Conc. Fl. Sing. (1990) 109; — *C. sparsiflorus* MORONG; CORLETT, J. Biogeog. (1988) 661.

885 **Croton caudatus** GEISEL; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 140; RIDLEY, Fl. Mal. Pen. 3 (1924) 259 (*var. malaccanus*); WHITMORE, Tree Fl. Malaya 2 (1973) 85; KENG, Conc. Fl. Sing. (1990) 108.

886 **Croton heterocarpus** M.A.; WHITMORE, Tree Fl. Malaya 2 (1973) 85; CORNER, Ways. Trees, 3rd ed. (1988) 284; KENG, Conc. Fl. Sing. (1990) 108; — *C. heteropetalum* RIDL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 262.

A 887 **Croton hirtus** L'HÉRIT.; WHITMORE, Tree Fl. Malaya 2 (1973) 84; CORLETT, J. Biogeog. (1988) 661; KENG, Conc. Fl. Sing. (1990) 109.

888 **Croton laevifolius** BL.; WHITMORE, Tree Fl. Malaya 2 (1973) 85; CORNER, Ways. Trees, 3rd ed. (1988) 284; KENG, Conc. Fl. Sing. (1990) 108; — *C. griffithii* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 140; RIDLEY, Fl. Mal. Pen. 3 (1924) 261; — *C. confusus* GAGE; RIDLEY, Fl. Mal. Pen. 3 (1924) 261.

889 **Drypetes pendula** RIDL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 222; WHITMORE, Tree Fl. Malaya 2 (1973) 89; CORNER, Ways. Trees, 3rd ed. (1988) 285; KENG, Conc. Fl. Sing. (1990) 109; — *Cyclostemon longifolius* (*non* BL.) HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 137.

890 **Endospermum diadenum** (Miq.) Airy Shaw; Corner, Ways. Trees, 3rd ed. (1988) 288; Keng, Conc. Fl. Sing. (1990) 109; — *E. malaccense* Benth. *ex* M.A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 142; Ridley, Fl. Mal. Pen. 3 (1924) 305; Whitmore, Tree Fl. Malaya 2 (1973) 93; — *E. ovalifolium* P. & H.; Ridley, Fl. Mal. Pen. 3 (1924) 305.

891 **Euphorbia atoto** Forst. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; Ridley, Fl. Mal. Pen. 3 (1924) 181; Henderson, Mal. Wild Fl. Dic. (1959) 462; Keng, Conc. Fl. Sing. (1990) 109.

A 892 **Euphorbia heterophylla** L.; Ridley, Fl. Mal. Pen. 3 (1924) 181; Henderson, Mal. Wild Fl. Dic. (1959) 462; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 109; Huft, Man. Fl. Pl. Hawai'i 1 (1990) 619.

A 893 **Euphorbia hirta** L.; Ridley, Fl. Mal. Pen. 3 (1924) 181; Henderson, Mal. Wild Fl. Dic. (1959) 462; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 109; — *E. pilulifera auct. plur., non* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; — *Chamaesyce hirta* (L.) Millsp.; Huft, Man. Fl. Pl. Hawai'i 1 (1990) 609

894 **Euphorbia thymifolia** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; Ridley, Fl. Mal. Pen. 3 (1924) 182; Henderson, Mal. Wild Fl. Dic. (1959) 461; Keng, Conc. Fl. Sing. (1990) 109; — *Chamaesyce thymifolia* (L.) Millsp.; Huft, Man. Fl. Pl. Hawai'i 1 (1990) 615.

895 **Excoecaria agallocha** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 143; Ridley, Fl. Mal. Pen. 3 (1924) 314; Whitmore, Tree Fl. Malaya 2 (1973) 96; Keng, Conc. Fl. Sing. (1990) 109.

896 **Fahrenheitia pendula** (Hassk.) Airy Shaw; Whitmore, Tree Fl. Malaya 2 (1973) 97; Keng, Conc. Fl. Sing. (1990) 110; — *Ostodes macrophylla* (M.A.) Benth. *ex* P. & H.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140; Ridley, Fl. Mal. Pen. 3 (1924) 269.

897 **Galearia fulva** (Tul.) Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 257; Whitmore, Tree Fl. Malaya 2 (1973) 98; Keng, Conc. Fl. Sing. (1990) 110; — *G. affinis* (R. Br) Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 255; — *G. phlebocarpa* (R. Br) Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 255; — *G. subulata* (M.A.) Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 258; — *G. wallichii* (R. Br.) Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 139; Ridley, Fl. Mal. Pen. 3 (1924) 256; — *G. finlaysonii* (R. Br) Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 257; — *G. fusca* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 257; — *G. lindleyana* (Tul.) Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 255; — *G. minor* Gage; Ridley, Fl. Mal. Pen. 3 (1924) 256; — *G. pedicellata* (R. Br) Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 257; — *G. ridleyi* Gage; Ridley, Fl. Mal. Pen. 3 (1924) 256.

898 **Glochidion arborescens** Bl.; Whitmore, Tree Fl. Malaya 2 (1973) 100.

899 **Glochidion brunneum** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 207; Whitmore, Tree Fl. Malaya 2 (1973) 100; Corner, Ways. Trees, 3rd ed. (1988) 323; Keng, Conc. Fl. Sing. (1990) 110; — *G. goniocarpum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 211; — *G. maingayi* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 210; — *G. pedunculatum* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 207.

900 **Glochidion fuscum** (M.A.) Boerl.; Whitmore, Tree Fl. Malaya 2 (1973) 100.

901 **Glochidion glomerulatum** (Miq.) Boerl.; Ridley, Fl. Mal. Pen. 3 (1924) 209; Whitmore, Tree Fl. Malaya 2 (1973) 100; Corner, Ways. Trees, 3rd ed. (1988) 323; Keng, Conc. Fl. Sing. (1990) 110; — *G. nanogynum* (M.A.) Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 214.

902 **Glochidion hypoleucum** (Miq.) Boerl.; Whitmore, Tree Fl. Malaya 2 (1973) 101; Keng, Conc. Fl. Sing. (1990) 110; — *G. laevigatum* (M.A.) Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 215; — *G. lutescens*; Corner, Ways. Trees, 3rd ed. (1988) 324.

903 **Glochidion kunstlerianum** Gage; Ridley, Fl. Mal. Pen. 3 (1924) 210; Whitmore, Tree Fl. Malaya 2 (1973) 102.

904 **Glochidion littorale** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 207; Whitmore, Tree Fl. Malaya 2 (1973) 101; Corner, Ways. Trees, 3rd ed. (1988) 323; Keng, Conc. Fl. Sing. (1990) 110.

905 **Glochidion microbotrys** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 209; Whitmore, Tree Fl. Malaya 2 (1973) 99; Keng, Conc. Fl. Sing. (1990) 110; — *G. trilobum* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 210, *p.p.*.

906 **Glochidion perakense** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 213; Whitmore, Tree Fl. Malaya 2 (1973) 101; Corner, Ways. Trees, 3rd ed. (1988) 325; — *G. glaberrimum* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 208; — *G. zeylanicum* (Gaertn.) A. Juss.; Keng, Conc. Fl. Sing. (1990) 110.

907 **Glochidion rubrum** Bl.; Whitmore, Tree Fl. Malaya 2 (1973) 101; Corner, Ways. Trees, 3rd ed. (1988) 325; — *G. leiostylum* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 212; Corner, Ways. Trees, 3rd ed. (1988) 323; — *G. laevigatum var. cuspidatum* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 215.

908 **Glochidion sericeum** (Bl.) Zoll. & Mor.; Ridley, Fl. Mal. Pen. 3 (1924) 215; Whitmore, Tree Fl. Malaya 2 (1973) 101; Airy Shaw, Euphorbs of Borneo (1975) 132; Corner, Ways. Trees, 3rd ed. (1988) 326; Keng, Conc. Fl. Sing. (1990) 110.

909 **Glochidion singaporense** Gage; Ridley, Fl. Mal. Pen. 3 (1924) 209; Whitmore, Tree Fl. Malaya 2 (1973) 101; Corner, Ways. Trees, 3rd ed. (1988) 326; Keng, Conc. Fl. Sing. (1990) 110.

910 **Glochidion superbum** Baill.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 136; Ridley, Fl. Mal. Pen. 3 (1924) 208; Whitmore, Tree Fl. Malaya 2 (1973) 99; Corner, Ways. Trees, 3rd ed. (1988) 326; Keng, Conc. Fl. Sing. (1990) 110.

Status of the genus *Eichlerago* (Labiatae)

Barry J. Conn

Abstract

Conn, Barry J. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, NSW, Australia 2000). Status of the genus Eichlerago *(Labiatae).* Telopea *4(4): 649–651. Eichlerago* is reduced to a synonym of *Prostanthera* and the new combination *Prostanthera tysoniana* (Carrick) Conn is made. This species is regarded as belonging to *Prostanthera* section *Prostanthera*. Notes on the habitat, distribution and conservation status are included.

Introduction

Eichlerago was described by Carrick (1977) as a new genus of the Lamiaceae, with close affinities to *Prostanthera*. He concluded that the genus was sufficiently distinct from other labiate genera to be placed in his new monotypic tribe Eichleragineae (within the subfamily Prostantheroideae *sensu* Briquet 1895). However, the features that Carrick used to distinguish this genus from *Prostanthera* are either plesiomorphic or (it is believed) incorrectly interpreted.

The infrafamilial classification used in this paper is based on that of Bentham in Bentham & Hooker (1876), as modified by Erdtman (1945). Hence, the Prostantheroideae *sensu* Briquet (1895) is referred to as the tribe Prostanthereae *sensu* Bentham in Bentham & Hooker (1876), of the subfamily Lamioideae *sensu* Erdtman (1945).

Discussion of Characters

Carrick concluded that the shape of the corolla in *Eichlerago* could be used to distinguish this genus from *Prostanthera*. However, contrary to his interpretation, the 3-lobed abaxial (lower) corolla lip in *Eichlerago* is typical of most species of *Prostanthera* (particularly in *Prostanthera* section *Prostanthera*. Of the fruiting characters that Carrick regarded as diagnostic, only the reduced distal lobing is apomorphic. However, this condition is a convergence that is also found in *Prostanthera queenslandica*. The other fruiting characters that he used include 'fruits dry' and 'fruits indehiscent'. The 'dry' rather than fleshy, fruit condition is a plesiomorphy, characteristic of all Labiatae. It is not known whether the fruits of *Eichlerago* are indehiscent or dehiscent. It is possible that they are a foraminose schizocarp, not dissimilar to those of the Prostanthereae (Conn 1984). Finally, Carrick regarded the position of the style as a diagnostic character. However, the terminal style is also a plesiomorphy. This character distinguishes the Prostanthereae and Ajugeae from the other Labiatae which have a gynobasic style (Conn 1984, Sharma & Singh 1982).

In an evaluation of relationships within the tribe Prostanthereae (Labiatae), *Eichlerago* and *Prostanthera* formed a clade characterised by four synapomorphies (Conn, in press). These characters were: the anther connective extended into a basal appendage, or if appendage absent (in some species of *Prostanthera*) then regarded as a secondary loss; the anther connective cristate with triangular trichomes; the leaves aromatic, or if non-aromatic (in a few species of *Prostanthera*) then regarded as a secondary loss; and the anther lobe terminating in a basal acumen. *Eichlerago* and *Prostanthera* section *Prostanthera* form the sister group to *Prostanthera* section *Klanderia*. The former clade is characterised by the adaxial lip of the calyx enlarging (often significantly) as the fruit matures. Some enlargement of the calyx has been noted in fruiting material of *E. tysoniana* (*Payne 107 & 126*).

Discussion of Infratribal Classification

Although it is premature to formally recognize infratribal groupings within the Prostanthereae, the current evaluation of the phylogeny of this tribe (Conn, in press) does not support Carrick's interpretation that all genera (apart from *Eichlerago*, which he placed in Eichleragineae) belong in one group (Prostanthereae *sensu* Carrick 1977). Within the Prostanthereae, Conn (in press) recognizes two main groups. One group (the *Prostanthera* clade) consists of *Prostanthera* (including *Eichlerago* and both sections of *Prostanthera*) and *Wrixonia*, with the other group (the *Microcorys* clade) consisting of *Hemiandra, Hemigenia, Microcorys* and *Westringia*. Therefore, there is even less support for the 'Eichleragineae' than there is for *Eichlerago*.

Conclusion

It is concluded that *Eichlerago* cannot be maintained as a distinct monotypic genus and it is here proposed that it become part of *Prostanthera* section *Prostanthera*.

Taxonomy

Prostanthera *Labill.*, Nov. Holl. Pl. Spec. 2: 18, t. 157 (1806).

TYPE SPECIES: *Prostanthera lasianthos* Labill.

TYPE: 'Van-Diemen', *Labillardière s.n.*, – (n.v.).

Eichlerago Carrick, J. Adelaide Bot. Gard. 1: 115 (1977).

TYPE SPECIES: *Eichlerago tysoniana* Carrick

TYPE: *Tyson 25* (for details refer below).

Prostanthera tysoniana *(Carrick) Conn*, **comb. nov.**

BASIONYM: *Eichlerago tysoniana* Carrick, J. Adelaide Bot. Gard. 1: 115, fig. 1 (1977). HOLOTYPE: WESTERN AUSTRALIA: 'Mt Narryer, Murchison River', *I. Tyson 25*, 1898 (PERTH); iso K.

DESCRIPTION: Refer Carrick (1977).

HABITAT: Open *Acacia brachystachya*-dominated shrubland on shallow (0.5–0.7 m deep) red sandy soils of the sandplain, overlying Permian lateritic-rich plains.

DISTRIBUTION: This rare species is endemic to the Byro–Mt Narryer area of Western Australia.

CONSERVATION STATUS: The Rangeland Survey Team of the Department of Agriculture, Western Australia, have located this species on the Byro, Curbur, Mt Narryer and Muggon pastoral properties (Ray Cranfield pers. comm., 10 June 1991). Its distribution reflects the very geographically restricted interzone of Permian and wash plains, which only occurs on three or four properties in this area (P. Curry in Cranfield pers. comm., 6 September 1991). Therefore the species is confined to an area of about 300 km^2. Although the distribution of this species is restricted, the known populations contain several hundred plants, with seedlings reported as either very common (*Conn 2083*, *Conn 2091–2096* and Cranfield pers. comm., 10 June 1991) or none seen (P. Curry in Cranfield pers. comm., 6 September 1991). Irrespective of the number of seedlings, the percentage that mature in this harsh environment may be very low, particularly because it is heavily grazed by stock and kangaroos.

Although more information about the distribution of this species is now available, the Western Australian Department of Conservation and Land Management consider it to be a 'Priority 1' species. That is, a species under immediate threat and under consideration for declaration as rare flora, but in need of urgent high priority further survey. Therefore, the risk code of 2K (applied by Briggs & Leigh 1988) should be changed to 2V.

OTHER SPECIMENS EXAMINED: WESTERN AUSTRALIA: Austin: 'Upper Murchison R. [River]', *I. Tyson 4*, 1892 (MEL 41916); Byro Station, c. 28 km NW of Mullewa–Gascoyne Junction Road, on road to Woodleigh Station, *Conn 2083*, 11 Sep 1985 (MEL, PERTH), *Conn 2091*, 12 Sep 1985, (AD, CANB, MEL, PERTH), *Conn 2092* [this and all following specimens collected on same day as *Conn 2091*](BRI, MEL, PERTH), *Conn 2093* (MEL, PERTH), *Conn 2094* (MEL, NSW, PERTH, RSA), *Conn 2095* (CANB, MEL, PERTH), *Conn 2096* (AD, CHR, MEL, MO, PERTH), *Conn 2098* (CANB, MEL, NSW, PERTH), *Cranfield 5162*, 21 June 1985 (PERTH); Curbur Station, *Payne 107*, 31 Oct 1985 (PERTH), *Payne 126*, Oct 1985 (PERTH).

Acknowledgments

Mr Ray Cranfield (PERTH) provided additional distribution information, incorporating data obtained by the Rangeland Survey Team (Department of Agriculture, Western Australia) and information from the Western Australian Department of Conservation and Land Management. This study was supported by an Australian Biological Resources Study Grant.

References

Bentham, G. & Hooker, J.D. (1876) *Genera plantarum*, vol. 2 (Reeve: London).

Briggs, J.D. & Leigh, J.H. (1988) *Rare or threatened Australian plants – 1988 revised edn*. Austral. Natl. Parks & Wildlife Service Special Publication no. 14.

Briquet, J. (1895) Labiatae p.p. Pp. 183-221 in Engler, A. & K. Prantl (eds), *Die Natürlichen Pflanzenfamilien*, Teil IV, Abteilung 3a (Engelmann: Leipzig).

Carrick, J. (1977) Studies in Australian Lamiaceae 2. *Eichlerago*, a new genus allied to *Prostanthera*. *J. Adelaide Bot. Gard.* 1: 115-122.

Conn, B.J. (1984) A taxonomic revision of *Prostanthera* section *Klanderia* (F.v. Muell.) Benth. (Labiatae). *J. Adelaide Bot. Gard.* 6: 207–348.

Conn, B.J. (in press) Relationships within the tribe Prostanthereae (Labiatae). In Harley, R.M. & Reynolds, T. (eds). *Advances in Labiate Science* (Royal Bot. Gard., Kew: London).

Sharma, M. & Singh, V. (1982) Morphology of the gynoecium in Labiatae. *Blumea* 28: 61–75.

Manuscript received 11 June 1991

Manuscript accepted 17 October 1991

950 **Suregada multiflora** (Juss.) Baill.; Whitmore, Tree Fl. Malaya 2 (1973) 133; Keng, Conc. Fl. Sing. (1990) 113; — *Gelonium bifarium* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 142; Ridley, Fl. Mal. Pen. 3 (1924) 311; — *Gelonium multiflorum* Juss.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 142; Ridley, Fl. Mal. Pen. 3 (1924) 311; — *Gelonium glomerulatum* (Bl.) Hassk.; Ridley, Fl. Mal. Pen. 3 (1924) 311.

951 **Synostemon bacciformis** (L.) G.L. Webster; Whitmore, Tree Fl. Malaya 2 (1973) 133; Keng, Conc. Fl. Sing. (1990) 114; — *Agyneia bacciformis* (L.) Juss.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 135; Ridley, Fl. Mal. Pen. 3 (1924) 198.

952 **Trigonostemon longifolius** Baill.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 140; Ridley, Fl. Mal. Pen. 3 (1924) 264; Whitmore, Tree Fl. Malaya 2 (1973) 136; Keng, Conc. Fl. Sing. (1990) 114.

FAGACAEAE

953 **Castanopsis inermis** (Lindl. *ex* Wall.) Benth. & Hook. *f.*; Corner, Ways. Trees 1st ed. (1940) 292; Soepadmo, Fl. Males. I 7^2 (1972) 315; Cockburn, Tree Fl. Malaya 1 (1972) 204; Corner, Ways. Trees, 3rd ed. (1988) 330; Keng, Conc. Fl. Sing. (1990) 64; — *C. sumatrana* (Miq.) A. DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 150; Ridley, Fl. Mal. Pen. 3 (1924) 390.

954 **Castanopsis javanica** (Bl.) A. DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 150; Soepadmo, Fl. Males. I 7^2 (1972) 306; Cockburn, Tree Fl. Malaya 1 (1972) 205; Corner, Ways. Trees, 3rd ed. (1988) 330; — *Pasania discocarpa* (Hance) Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 386; — *Quercus discocarpa* Hance; Burkill, Dict. (1935) 1855; Corner, Ways. Trees 1st ed. (1940) 302.

955 **Castanopsis lucida** (Nees) Soepadmo; Soepadmo, Fl. Males. I 7^2 (1972) 318; Cockburn, Tree Fl. Malaya 1 (1972) 205; Keng, Conc. Fl. Sing. (1990) 64; — *C. hullettii* King *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 150; Ridley, Fl. Mal. Pen. 3 (1924) 389; Burkill, Dict. (1935) 487; — *Alseodaphne lucida* Nees; Ridley, Fl. Mal. Pen. 3 (1924) 100.

956 **Castanopsis malaccensis** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 388; Corner, Ways. Trees 1st ed. (1940) 293; Soepadmo, Fl. Males. I 7^2 (1972) 303; Cockburn, Tree Fl. Malaya 1 (1972) 206; Corner, Ways. Trees, 3rd ed. (1988) 330; Keng, Conc. Fl. Sing. (1990) 64.

957 **Castanopsis megacarpa** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 390; Corner, Ways. Trees 1st ed. (1940) 293; Soepadmo, Fl. Males. I 7^2 (1972) 305; Cockburn, Tree Fl. Malaya 1 (1972) 206; Corner, Ways. Trees, 3rd ed. (1988) 330; Keng, Conc. Fl. Sing. (1990) 64.

958 **Castanopsis nephelioides** King *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 150; Ridley, Fl. Mal. Pen. 3 (1924) 391; Soepadmo, Fl. Males. I 7^2 (1972) 298; Cockburn, Tree Fl. Malaya 1 (1972) 207; Keng, Conc. Fl. Sing. (1990) 64.

959 **Castanopsis schefferiana** Hance; Soepadmo, Fl. Males. I 7^2 (1972) 310; Cockburn, Tree Fl. Malaya 1 (1972) 207; Keng, Conc. Fl. Sing. (1990) 65; — *C. andersonii* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 389.

New taxa and a new combination in *Triodia* (Poaceae)

S.W.L. Jacobs

Abstract

Jacobs, S.W.L. (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, N.S.W., Australia, 2000) 1992. New taxa and a new combination in Triodia *(Poaceae).* Telopea *4(4): 653–659.* The *Triodia irritans* complex is reassessed. *T. irritans* var. *laxispicata* is treated as a synonym of *T. scariosa*; a new combination is made for *T. compacta*; and *T. scariosa* subsp. *bunicola*, *T. scariosa* subsp. *yelarbonensis*, *T. truncata*, *T. tomentosa* and *T. radonensis* are described as new. All but the last species belong to the *T. irritans* group.

Introduction

Burbidge (1953) treated the *Triodia irritans* complex by recognising *T. irritans*, *T. scariosa*, *T. lanata* and three varieties within *T. irritans*: var. *irritans*, var. *compacta* and var. *laxispicata*. Three informal forms (designated A, B and C) were described in *T. irritans* var. *laxispicata*. Unfortunately, the type of *T. irritans* var. *laxispicata* is conspecific with *T. scariosa*. Rectifying this problem for the 'Flora of New South Wales' presents an opportunity for a reassessment of the *T. irritans* complex and the description of some new taxa.

The *T. irritans* complex

Two of the forms of *T. irritans* var. *laxispicata* ('B' and 'C') are geographically isolated and show little character overlap, can be recognised in the field, and are as distinct as varieties recognised in *T. mitchellii* and *T. pungens* (Burbidge 1953, 1960). *T. irritans* var. *compacta* is distinct from both *T. scariosa* and *T. irritans* and, if anything, is more closely related to the former than to the latter. *T. irritans* var. *compacta* is here recognised at the species level as *T. compacta*. *T. compacta* differs from both in the shorter rhachilla segments and denser-flowered spikelets with almost twice the number of florets per spikelet. Similar relative glume lengths and emarginate lemmas are shared by *T. compacta* and *T. scariosa*. To reflect the taxonomic situation and to simplify communication by changing the present subspecific classification from two formal levels and one informal level to a system of two formal levels, I propose to recognise *T. irritans* var. *compacta* at the species level, treat *T. irritans* var. *laxispicata* form 'A' as a synonym of *T. scariosa* and to recognise forms 'B' and 'C' of *T. irritans* var. *laxispicata* as subspecies of *T. scariosa*.

Triodia compacta *(N.T. Burbidge) S.W.L. Jacobs*, **comb. et stat. nov.**

BASIONYM: *Triodia irritans* var. *compacta* N.T. Burbidge (1953: 169).

LECTOTYPE (here designated): SOUTH AUSTRALIA: Elliston Beach, Eyre Peninsula, *J.H. Willis*, 26 Aug 1947 (CANB); isolecto MEL.

Burbidge designated both specimens as the 'holotype'; I have selected the specimen at CANB where she worked as lectotype.

Triodia scariosa *N.T. Burbidge* (1953: 173).

HOLOTYPE: WESTERN AUSTRALIA: Pioneer Rock, N of Lake Cowan, *N.T. Burbidge 2675* (CANB).

Triodia scariosa subsp. **scariosa**

Triodia irritans var. *laxispicata* N.T. Burbidge (1953: 171), **syn. nov.**

LECTOTYPE (here designated): NEW SOUTH WALES: South Far Western Plains: Tooleybuc, *J. Vickery*, 14 Oct 1949 (CANB); isolecto NSW.

Burbidge designated both specimens as the 'holotype'; I have selected the specimen at CANB, where she worked, as lectotype.

T. irritans var. *laxispicata* N.T. Burbidge 'forma A' belongs here.

Triodia scariosa subsp. **bunicola** *S.W.L. Jacobs*, **subsp. nov.**

Subsp. *scariosae* affinis, sed lemmatibus glumisque longioribus, spiculis longioribus latioribusque, differt.

HOLOTYPE: SOUTH AUSTRALIA: Flinders Ranges N of Hawker, *S. Jacobs*, 19 Aug 1966 (SYD).

Hummock-forming perennial. Leaf sheath, orifice and blade glabrous, blade pungent-pointed. Inflorescence paniculate, contracted, 15–30 cm long. Spikelets 12–20 mm long, 7–10 mm wide when lemmas divergent. Glumes 8–12 mm long. Lowest lemma 8–10 mm long; lemma apex emarginate, mucro usually absent. Palea shorter than to subequal to its subtending lemma.

Based more or less on *T. irritans* var. *laxispicata* N.T. Burbidge 'forma B' but with a 'type' different to that indicated in the informal publication of that form and excluding those of the originally cited specimens not from the southern Flinders Range.

From the Greek *bounos* (Latinised to *bunus*), hill or mound, and the Latin *-cola*, dweller, i.e. hill-dweller.

HABITAT: On hill slopes and once-wooded areas now often cleared for grazing.

DISTRIBUTION: On slopes of the Flinders Ranges and adjacent areas, South Australia.

SELECTED SPECIMENS: SOUTH AUSTRALIA: Port Germein Pass, *Blake 16856*, 29 Aug 1946 (NSW, BRI); between 'Yednalue' and Flinders Ranges, *Jacobs*, 22 Aug 1966 (SYD); N of Hawker on main road, *Jacobs*, 20 May 1966 (SYD); Flinders Range, *Koch*, Oct 1901 (NSW).

Triodia scariosa subsp. **yelarbonensis** *S.W.L. Jacobs*, **subsp. nov.**

Subsp. *scariosae* affinis, sed spiculis angustioribus, lemmatibus villosioribus brevioribus latioribusque, differt.

HOLOTYPE: NEW SOUTH WALES: North Western Slopes: on New South Wales–Queensland border, *P. Vickery*, c. 1933 (NSW).

Hummock-forming perennial. Leaf sheath, orifice and blade glabrous, blade pungent-pointed. Inflorescence paniculate, contracted, 10–25 cm long. Spikelets 7–18 mm long, 3–5 mm wide when lemmas divergent. Glumes 5.5–7 mm long, often lightly scabrous. Lowest lemma 4.5–6 mm long, comparatively shorter and with longer hairs (to 1.5 mm long) than in the other subspecies; apex emarginate, usually with a short mucro.

Based on *T. irritans* var. *laxispicata* N.T. Burbidge 'forma C'.

Named after a small town, Yelarbon, near the centre of its distribution.

HABITAT: Poor alluvial soils along the Dumaresq River and some of its northern tributaries.

DISTRIBUTION: Both sides of the Queensland–New South Wales border from about Inglewood to Goondiwindi.

SPECIMENS EXAMINED: QUEENSLAND: Goondiwindi, *Shirley 4525/19*, Nov 1919 (NSW); Inglewood–Texas road, 4 km from Inglewood, *Simon 2864A*, *Pedley & McDonald*, 3 Sept 1975 (BRI, NSW); c. 2 km S of Yelarbon, Keetah Bridge-Yetman road, *Wilson 1367*, Oct 1975 (NSW).

Triodia truncata S.W.L. Jacobs, **sp. nov.**

T. scariosae affinis sed apice lemmatis lacerato truncatoque, costa lemmatis excurrente, lemmatibus 3-nervibus brevioribus latioribusque, differt.

HOLOTYPE: SOUTH AUSTRALIA: 56 miles [90 km] WNW of Emu, *N. Forde 537*, 14 Sept 1956 (NSW); iso CANB.

Hummock-forming perennial. Leaf sheaths glabrous, smooth, 2–3 mm wide, the margins with a few hairs to 0.5 mm long near the top; orifice with a few hairs to 0.5 mm long that become woolly with age, ligule a ciliate rim; blade to c. 12 cm long, permanently folded, pungent-pointed. Inflorescence paniculate, contracted, 10–15 cm long. Spikelets 4–6-flowered, 10–12 mm long. Glumes equal, c. 7 mm long, broadly lanceolate, acute, scabrid along the midrib. Lowest lemma c. 7 mm long, 3 mm wide, 3-nerved, hairy in the lower half with hairs to 2 mm long; apex raggedly truncate, very shortly ciliate, with the midnerve excurrent as a scabrid mucro 0.25–0.5 mm long. Palea c. 5 mm long, with a few tangled hairs to 1 mm long at the base; apex minutely 2-lobed. Stamens 3, c. 3 mm long. Caryopsis not seen. Fig. 1.

HABITAT: Reportedly in interdune areas with *Acacia aneura*.

DISTRIBUTION: Known only from the type.

Named for the characteristically truncate lemmas.

Triodia tomentosa S.W.L. Jacobs, **sp. nov.**

T. lanatae affinis sed glumis longioribus glabrisque, lemmatibus longioribus acutisque, differt.

HOLOTYPE: WESTERN AUSTRALIA: Great Northern Highway, 6 km SW of Paynes Find, 29°18'S 117°36'E, *M.G. Corrick 9324*, 24 Oct 1984 (NSW); iso MEL.

Hummock-forming perennial to c. 40 cm diam. Sheaths 2–3 mm wide, woolly-hairy with hairs c. 1 mm long; the orifice with similar tangled hairs and these extending

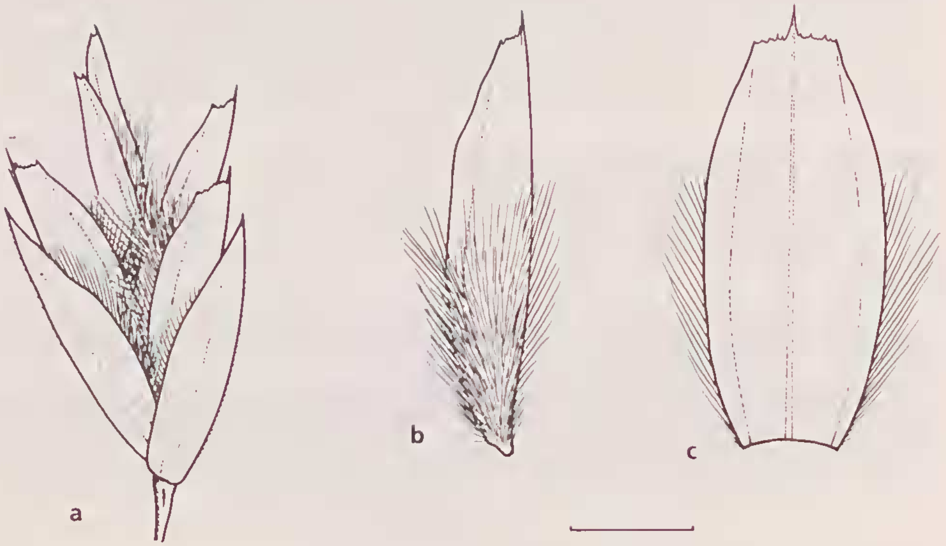

Fig. 1. *Triodia truncata* **a**, whole spikelet; **b**, lateral view of lemma; **c**, adaxial view of lemma. Scale bar = 3 mm for a, = 2 mm for b & c. Drawn from *N. Forde 537* (NSW) by David Mackay.

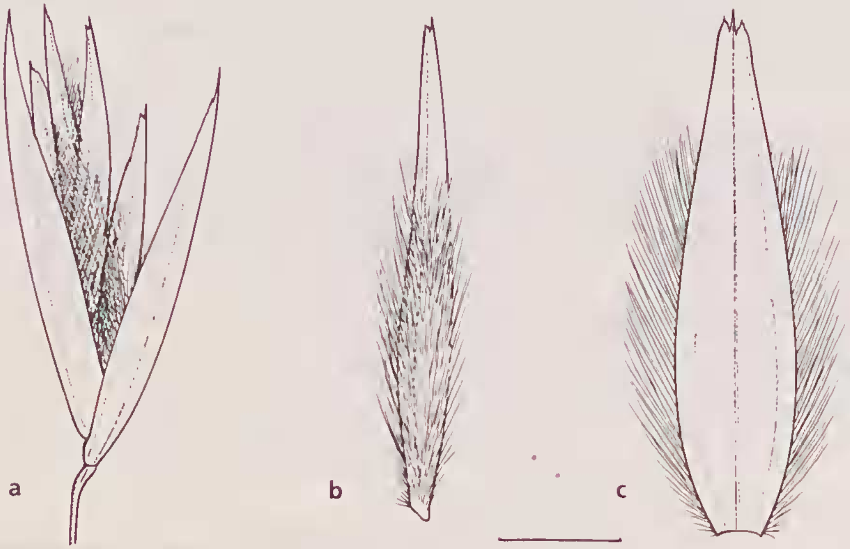

Fig. 2. *Triodia tomentosa* **a**, whole spikelet; **b**, lateral view of lemma; **c**, adaxial view of lemma. Scale bar = 3 mm for a, = 2 mm for b & c. Drawn from *M.G. Corrick 9324* (NSW) by David Mackay.

5–15 mm up the adaxial surface of the blade; blades to c. 10 cm long, permanently folded, pungent-pointed, glabrous except near the orifice. Inflorescence paniculate, contracted, 10–15 cm long. Spikelets 12–14 mm long, 4–5-flowered. Glumes equal, lanceolate, scarious, acute to aristate, 11–12 mm long, glabrous. Lowest lemma 3-nerved, 9–10 mm long, with hairs c. 2 mm long over the lower 60%; the apex acute, emarginate, with the midnerve excurrent as a mucro 0.25–0.5 mm long. Palea acute, entire, c. 90% the length of the lemma, with scattered hairs c. 1 mm long at the base. Stamens 3, c. 4 mm long. Mature caryopsis not seen, immature caryopses typically chloridoid. Fig. 2.

HABITAT: Reportedly from an open woodland of *Melaleuca* and *Acacia*.

DISTRIBUTION: Only known from the type.

Named from the tomentose hairs of the sheath, orifice and lower blade.

Key to the *T. irritans* group

1 Leaf sheath and orifice glabrous or almost so 2

1* Leaf sheath and orifice with woolly hairs 7

2 Lemma apex raggedly truncate, the midnerve excurrent as a mucro .... **T. truncata**

2* Lemma apex emarginate, obtuse or acute; if the midnerve excurrent then between lobes 3

3 Midnerve excurrent as a short awn between and longer than the stiff lobes; glumes subequal to the spikelet .... **T. irritans**

3* Lemma apex emarginate, sometimes with a mucro shorter than the lobes; glumes usually shorter than the spikelet 4

4 Spikelets 8–12-flowered; lemmas closely distichous, lower rhachilla segments usually <1 mm long .... **T. compacta**

4* Spikelets mostly less than 8-flowered; lemmas loosely distichous, lower rhachilla segments usually >1 mm long .... **T. scariosa** and subspp. 5

5 Mature spikelets with divergent lemmas usually <5 mm wide; lowest lemma 4.5–6 mm long .... **T. scariosa** subsp. **yelarbonensis**

5* Mature spikelets with divergent lemmas usually >5 mm wide; lowest lemma 6 mm long or more 6

6 Glumes 5.5–9 mm long; lowest lemma 6–7 mm long .... **T. scariosa** subsp. **scariosa**

6* Glumes 8–12 mm long; lowest lemma 8–10 mm long ... **T. scariosa** subsp. **bunicola**

7 Glumes glabrous, 11–12 mm long; lowest lemma 9–10 mm long ..... **T. tomentosa**

7* Glumes hairy, 7–10 mm long; lowest lemma 6–8 mm long .... **T. lanata**

Triodia pungens group

Triodia radonensis S.W.L. Jacobs, **sp. nov.**

T. microstachyae affinis sed glumis emarginatis vel 2-lobis, paleis alatis, lemmatibus tumidis induratisque, lobis lemmatis minutis membranaceisque, differt.

Holotype: Northern Territory: Radon Creek, Brockman Range, *P.K. Latz 7676*, 10 June 1978 (NSW); iso BRI, CANB, DNA, PERTH, K.

Viscid perennial forming loose hummocks to c. 5 m diam. Sheaths loose, to 15 mm wide; orifice with a few hairs to 0.5 mm long matted with resin; blades loosely folded, to c. 60 cm long, curved, not pungent-pointed. Inflorescence paniculate, open, 15–25 cm long. Spikelets 4–6-flowered, 6–8 mm long, c. 4 mm wide when the lemmas divergent, appearing open with rhachilla segments c. 1 mm long. Glumes subequal, membranous, c. 2 mm long, emarginate or 2-lobed, the lobes obtuse. Lowest lemma 2–3 mm long, 3-nerved, glabrous or the margins with very few scattered hairs, shiny, swollen and indurated; apex membranous, minutely 3-lobed. Palea subequal to the lemma, winged and the wings visible in the spikelet and ciliolate. Stamens 3, 2 mm long. Mature caryopses not seen. Fig. 3.

Habitat: Sandy levee banks.

Distribution: Known only from the type locality.

Named from the locality, Radon Creek in the Brockman Range, Northern Territory.

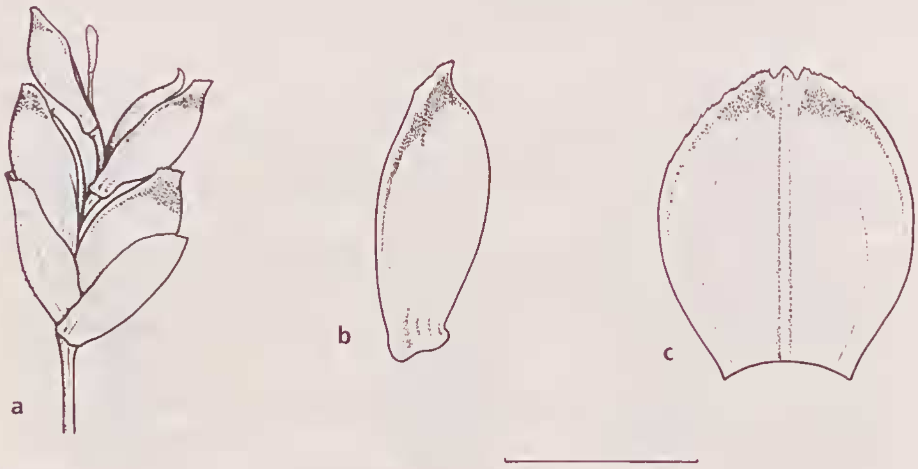

Fig. 3. *Triodia radonensis* **a**, whole spikelet; **b**, lateral view of lemma; **c**, adaxial view of lemma. Scale bar = 3 mm for a, = 2 mm for b & c. Drawn from *P.K. Latz 7676* (NSW) by David Mackay

Acknowledgments

Many thanks to Karen Wilson for the Latin diagnoses, to Ken Hill for his helpful comments on the manuscript, and to David Mackay for his excellent art work.

References

Burbidge, N.T. (1953) The genus *Triodia* R. Br. (Gramineae). *Australian Journal of Botany* 1: 121–184.

Burbidge, N.T. (1960) Further notes on *Triodia* R. Br. (Gramineae) with description of five new species and one variety. *Australian Journal of Botany* 8: 381–394.

Manuscript received 15 July 1991
Manuscript accepted 17 October 1991

1032a **Dimeria ornithopoda** Trin. *var.* **ornithopoda**; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 186; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 151; Ridley, Fl. Mal. Pen. 5 (1925) 192; Burkill, Dict. (1935) 810; Henderson, Mal. Wild Fl. Monoc. (1954) 346; Gilliland, Rev. Fl. Malaya 3 (1971) 214.

1032b **Dimeria ornithopoda** *var.* **glabra** (Ridl.) Jansen; Gilliland, Rev. Fl. Malaya 3 (1971) 216; — *D. glabra* Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 192.

1033 **Echinochloa colona** (L.) Link; Ridley, Fl. Mal. Pen. 5 (1925) 222; Burkill, Dict. (1935) 888; Henderson, Mal. Wild Fl. Monoc. (1954) 336; Gilliland, Rev. Fl. Malaya 3 (1971) 167; — *Panicum colonum* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 184; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 132.

1034 **Echinochloa crus-galli** (L.) P. Beauv.; Ridley, Fl. Mal. Pen. 5 (1925) 222; Burkill, Dict. (1935) 889; Gilliland, Rev. Fl. Malaya 3 (1971) 168; — *Panicum crus-galli* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 184; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 132.

1035 **Echinochloa stagnina** (Retz.) P. Beauv.; Gilliland, Rev. Fl. Malaya 3 (1971) 166.

One collection from 1883.

1036 **Eleusine coracana** (L.) Gaertn.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 174; Burkill, Dict. (1935) 916; Gilliland, Rev. Fl. Malaya 3 (1971) 80; — *E. indica* (l.) Gaertn. *var. coracana* Gaertn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 187; Ridley, Fl. Mal. Pen. 5 (1925) 250.

1037 **Eleusine indica** (L.) Gaertn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 187; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 174; Ridley, Fl. Mal. Pen. 5 (1925) 250; Burkill, Dict. (1935) 917; Henderson, Mal. Wild Fl. Monoc. (1954) 313; Gilliland, Rev. Fl. Malaya 3 (1971) 78.

1038 **Eragrostis atrovirens** (Desf.) Nees *ex* Steud.; Gilliland, Rev. Fl. Malaya 3 (1971) 68; Lazarides, Trop. Grass. SE Asia (1980) 173; — *E. elegantula* Steud.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 187; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 179; Ridley, Fl. Mal. Pen. 5 (1925) 248; Henderson, Mal. Wild Fl. Monoc. (1954) 312.

1039 **Eragrostis cambessediana** Steud.; Sinclair, Gard. Bull. Sing. 14 (1953) 36.

1040 **Eragrostis elongata** (Willd.) Jacq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 187; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 179; Ridley, Fl. Mal. Pen. 5 (1925) 248; Henderson, Mal. Wild Fl. Monoc. (1954) 313.

1041 **Eragrostis gangetica** (Roxb.) Steud.; Gilliland, Rev. Fl. Malaya 3 (1971) 68.

1042 **Eragrostis malayana** Stapf; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 178; Ridley, Fl. Mal. Pen. 5 (1925) 247; Gilliland, Rev. Fl. Malaya 3 (1971) 65.

1043 **Eragrostis pilosa** (L.) P. Beauv.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 179; Ridley, Fl. Mal. Pen. 5 (1925) 247; Gilliland, Rev. Fl. Malaya 3 (1971) 69.

Additions to the lichen flora of Tasmania

G. Kantvilas[1] and A. Vězda[2]

Abstract

Kantvilas, G.[1] *& Vězda, A.*[2]*([1]Tasmanian Herbarium, G.P.O. Box 252C, Hobart, Tasmania, Australia 7001; [2]Botanical Institute, Czechoslovak Academy of Sciences, 602 00 Brno, Tábor 28a, Czechoslovakia) 1992. Additions to the lichen flora of Tasmania.* Telopea 4(4): 661–670. Five new lichens are described. *Arthonia tasmanica* Kantvilas & Vězda, *A. sagenidii* Vězda & Kantvilas and *Arthothelium subspectabile* Vězda & Kantvilas are known only from cool temperate rainforest in Tasmania; *Gyalideopsis graminicola* Vězda & Kantvilas is an endemic Tasmanian alpine lichen and the first record of the genus from Tasmania; *Lecanactis subpremnea* Kantvilas & Vězda is described from the rainforests of Tasmania and Victoria.

1. Arthonia sagenidii *Vězda & Kantvilas*, sp. nov.

Mycelium in thallo lichenis (*Sagenidium molle* Stirton) parasitice vel parasymbiotice vigens, haud visibile. Ascocarpia copiosa, minutissima, lentiformia, 0.1–0.15 mm lata, circa 30 µm alta, dispersa vel aggregata, atrofusca. Stratum hypotheciodeum usque ad 10 µm altum, pallide fuscum vel fere incoloratum. Stratum ascigerum circa 25–30 µm altum, plus minusve hyalinum, strato epithecioideo atrofusco, in KOH decolorato. Paraphysoides ramosae anastomosantesque, circa 0.8 µm crassae, apicibus capitatis, nigrofuscis, colore in KOH griseo viridi. Asci clavati, octospori. Ascosporae oblongo-ellipsoideae, incoloratae, 1-septatae, 6–8.5(–9) µm longae, 2–2.2 µm latae.

Type: Australia: Tasmania: Scotts Peak Road, north of Huon River, on thalli of *Sagenidium molle* on dry trunk of *Nothofagus cunninghamii* in rainforest, 560 m, *G. Kantvilas 525/88* p.p., 23 November 1988 (holo HO; iso GZU, herb. Vězda). The type material of *Arthonia sagenidii* has been separated from specimens of *Sagenidium molle* that were distributed as *Lichenes Selecti Exsiccati: 2368.*

Thallus not apparent or absent, mycelium entirely within the thallus of the lichen *Sagenidium molle* as a parasite or parasymbiont. Ascocarps numerous, scattered or crowded, ± roundish and lens-shaped, minute, 0.1–0.15 mm wide, c. 30 µm high, dark brown. Hypothecial layer to 10 µm thick, pale brown to almost colourless. Ascigerous layer, c. 25–30 µm thick, ± hyaline. Epithecioid layer dark brown, fading in KOH. Paraphysoids branched, anastomosing, c. 0.8 µm thick, with capitate, blackish apices, persistently greyish green in KOH. Asci broadly clavate, eight-spored, 20–30 x 8–13 µm. Ascospores colourless, oblong-ellipsoid, consistently 1-septate, 6–8.5(–9) x 2–2.2 µm, the upper cell somewhat larger. Figure 1 (anatomy).

Remarks: *Arthonia sagenidii* is well-characterised by the combination of tiny ascocarps and short, 1-septate ascospores. It occurs exclusively as an apparent parasite or parasymbiont on the thallus of *Sagenidium molle*, a common and widespread lichen in Tasmanian rainforests. The byssoid thallus of *Sagenidium* forms extensive colonies to 60 cm wide in locally dry, sheltered habitats, mostly on the undersides of mature, leaning trees of *Nothofagus cunninghamii*. The new species is very inconspicuous, being visible only as tiny, clustered blackish specks on the surface of the pale greyish *Sagenidium* substrate. It is apparently rare: neither extensive field work nor a search of numerous herbarium specimens of *Sagenidium* revealed more than a

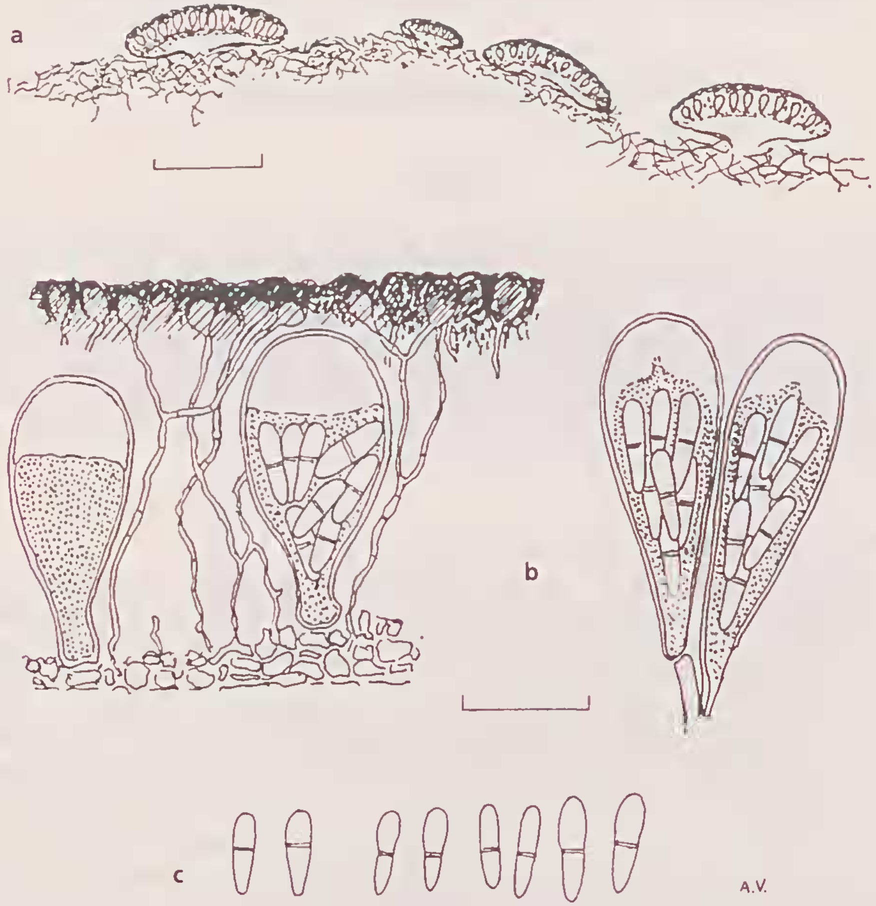

Figure 1. *Arthonia sagenidii.* **a**, Vertical section of four ascocarps (scale = 0.1 mm); **b**, Asci with paraphysoids; **c**, Spores. (scale = 10 µm).

few localities. *Arthonia sagenidii* is frequently associated with *Chaenothecopsis sagenidii*, which shares the same unique habitat and host.

SPECIMENS EXAMINED: AUSTRALIA: TASMANIA: Forest track below Mt Victoria, *G.C. Bratt 73/1225*, 24 November 1973 (HO); Mt Mangana, 420 m, *G.C. Bratt 71/1096*, 7 August 1971 (HO); Hartz Mts National Park, on *Sagenidium molle* on *Nothofagus cunninghamii* in mixed forest, 680 m, *M. Wedin 3006*, 28 January 1990 (HO, UPS); Scotts Peak Road, 2.5 km from Gordon River Road, on *Sagenidium molle* on trunk of *Nothofagus cunninghamii* in rainforest, 550 m, *M. Wedin 3046*, 29 January 1990, (HO, UPS).

2. Arthonia tasmanica *Kantvilas & Vězda*, sp. nov.

Thallus crustaceus, epi- et hypophloeodes, tenuissimus, sordide cinereus, laevis vel paulo furfuraceus. Ascocarpia copiosa, rotunda, convexa, atra vel atrofusca, epruinosa, 0.2–0.5 mm lata, 100–130 µm crassa. Stratum hypothecioideum hyalinum vel pallide fuscum, circa 25–30 µm crassum. Stratum ascigerum hyalinum, usque ad circa 70 µm crassum, strato epithecioideo rufofusco, olivaceo vel immutato in KOH. Paraphysoides sparsae, ramosae anastomosantesque, circa 1 µm crassae. Asci subglobosi, octospori, 40–68 µm longi, 36–56 µm lati. Ascosporae (28–)30–40 x (12–)15–18 µm, ellipsoideae vel parum clavatae, rectae vel interdum curvatae, diu hyalinae, in aetate atrofuscae, leviter constrictae praecipue ad septum medium, persaepe triseptatae, rarissime uni vel quadriseptatae, loculis apicalibus quam centralibus valde minoribus, membranis et septis usque ad 2 µm crassis.

TYPE: AUSTRALIA: TASMANIA: Little Fisher River, on *Telopea truncata* and *Atherosperma moschatum* in rainforest, 820 m, *G. Kantvilas 708/84C*, 20 October 1984 (holo HO; iso herb. Vězda).

Thallus crustose, epi- and hypophloeodal, dull dingy grey, very thin, smooth to rather scurfy, forming irregular patches mostly less than 3 cm wide, occasionally delimited by a thin black line. Ascocarps numerous, roundish, convex, black to blackish brown, 0.2–0.5 mm wide, 100–130 µm thick, becoming somewhat larger, flatter and irregular in outline with age. Hypothecial layer hyaline to pale brown, c. 25–30 µm thick. Ascigerous layer hyaline, to c. 70 µm thick. Epithecioid layer reddish brown to brown, olivaceous or unchanged in KOH. Paraphysoids sparse, branched and anastomosing, c. 1 µm thick. Asci subglobose, eight-spored, 40–68 x 36–56 µm. Ascospores (28–)30–40 x (12–)15–18 µm, ellipsoid to slightly clavate, straight or occasionally curved, hyaline, becoming grey-brown to dark brown with age, contents mostly greyish and granular, especially in KOH, slightly constricted (mostly across the central septum) almost invariably 3-septate, very rarely 1 or 4 septate with the apical locules markedly smaller than the central ones; walls and septa to 2 µm thick. Figure 2 (anatomy).

REMARKS: *Arthonia tasmanica* is an uncommon and easily overlooked species, known from several widely scattered localities in cool temperate rainforest in Tasmania. It occurs on the smooth bark of various phorophytes (as seen in the case of the type collection) in open or semi-shaded conditions such as on young trees in clearings or on canopy twigs. Associated lichens include *Arthothelium ilicinum*, *Catillaria* spp., *Parmelia salcrambidiocarpa*, *Menegazzia weindorferi*, *Sarrameana tasmanica*, *Porina leptaleina*, *Sphaerophorus tener*, *Rinodina dissa* and *Thelotrema lepadinum*.

The new species is characterised by its rather large, three-septate spores. Although most specimens possessed abundant ascocarps, many sections examined revealed only empty asci or asci with very old, collapsed or heavily brown-pigmented spores with thick walls and septa. The KOH+ olivaceous green reaction of the epithecium, a common feature of many taxa of Arthoniaceae, is variable and intermittent in this species and appears to be of only limited taxonomic value. In gross morphology, *Arthonia tasmanica* is rather similar to *Arthothelium ilicinum*, a relatively common species in Tasmanian rainforests with which it frequently co-occurs; *A. ilicinum* has spores of similar overall size but with up to 8 transverse septa and with a significantly enlarged terminal cell.

SPECIMENS EXAMINED: AUSTRALIA: TASMANIA: Balts Spur, Tasman Peninsula, on canopy twigs of *Nothofagus cunninghamii* in rainforest, 420 m, *G. Kantvilas 162/83*, July 1983 (HO); Adamsons Falls track, on dead *Anodopetalum biglandulosum* in rainforest, *G. Kantvilas 976/81*, 26 September 1981 (HO); Mt Victoria track, on *Pittosporum bicolor* in rainforest, 950 m, *G. Kantvilas 1190/81*, 8 December 1981 (HO); Weindorfers Forest, on *Nothofagus cunninghamii* in rainforest, 920 m, *G. Kantvilas 614/88*, 6 March 1988 (HO); Anthony Road, on twigs of *Atherosperma moschatum* in rainforest, 580 m, *G. Kantvilas 214/91*, 13 May 1991 (HO); Eastern Arthur Range, c. 1 km south of East Portal, on *Nothofagus cunninghamii* in rainforest, 780 m, *G. Kantvilas 125/91*, 25 March 1991, (HO); Rebecca Road, south of Arthur River, on fallen branch of *Nothofagus cunninghamii*, *J. Glennie 191*, 24 February 1991 (HO).

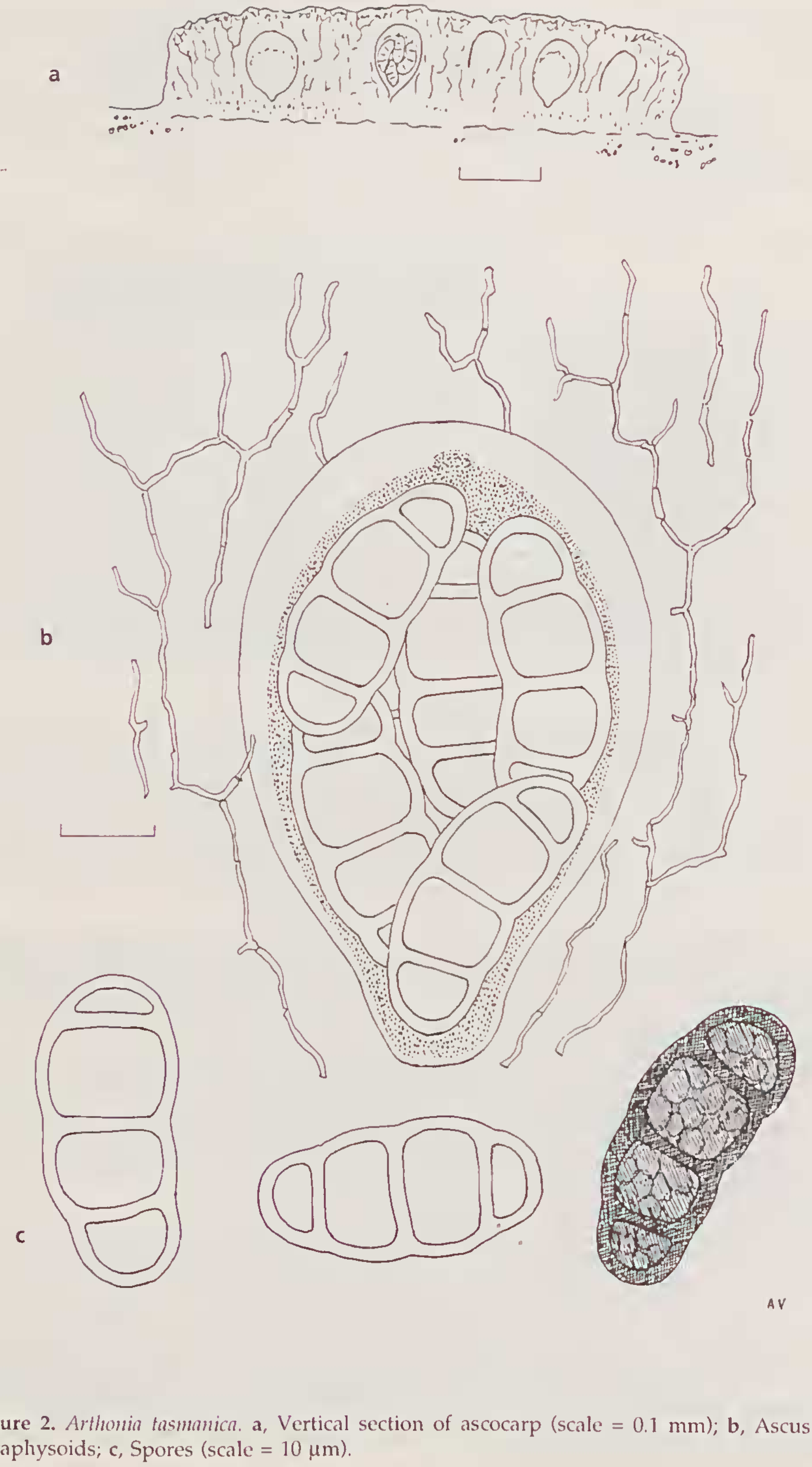

Figure 2. *Arthonia tasmanica.* **a**, Vertical section of ascocarp (scale = 0.1 mm); **b**, Ascus with paraphysoids; **c**, Spores (scale = 10 μm).

3. Arthothelium subspectabile *Vězda & Kantvilas*, sp. nov.

Thallus crustaceus, epiphloeodes, pro parte etiam hypophloeodes, cinereo-albidus vel sordide olivaceo-cinereus, laevigatus. Alga ad *Trentepohliam* pertinens. Ascocarpia plus minusve orbicularia, semi-immersa, basin versus constricta, convexa, 0.25–0.4 (–0.6) mm lata, 0.2–0.25 mm alta, nigra, opaca, juniora albopruinosa (pruina grosse granulosa), in aetate nuda. Stratum ascigerum 180–200 µm crassum, incoloratum vel dilute rufofuscum, superne atrofuscum et granulis copiosis inspersum. Paraphysoides ramosae anastomosantesque, circa 1–1.2 µm crassae. Asci subglobosi, 60–70 µm longi, 45–55 µm lati, (2–6–)8-spori. Ascosporae ellipsoideae vel fere ovoideae, muriformes, primum hyalinae, demum atrofuscae, (28–)30–35(–44) µm longae, (14–)15–20 (–24) µm latae.

Type: Australia: Tasmania: 3 km south-east of Mt Agnew, on dry trunk of mature *Nothofagus cunninghamii* in rainforest, 190 m, *G. Kantvilas 135/89*, 6 April 1989 (holo HO; iso herb. Vězda).

Thallus crustose, epiphloeodal and in part hypophloeodal, greyish white to dingy olive-grey, smooth. Photobiont *Trentepohlia*. Ascocarps ± rounded, semi-immersed, constricted at the base, convex, 0.25–0.4(–0.6) mm wide, 0.2–0.25 mm thick, black, opaque, very coarsely granular whitish pruinose when young, soon becoming epruinose. Hypothecial layer poorly developed, ± pale red-brown to colourless. Ascigerous layer 180–200 µm thick, colourless to pale reddish brown, I+ red, in the upper part dark brown, K+ olive-grey and densely inspersed with numerous ± angular granules; granules mostly to 8 mm wide, dissolving in K. Paraphysoids branched and anastomosing, 1–1.2 µm thick. Asci subglobose, 60–70 µm long, 45–55 µm wide, (2–6–)8-spored. Ascospores ellipsoid to almost ovoid, densely muriform with c. 7–11 transverse and 2–5 longitudinal septa, hyaline at first, becoming dark brown, (28–)30–35 (–44) x (14–)15–20 (–24) µm. Figure 3 (anatomy).

Remarks: *Arthothelium subspectabile* is closely related to the western European species, *A. spectabile* Flotow ex Massal. (see Tehler 1990 for a full description), but differs by its densely granular-white-pruinose young apothecia, by the numerous granules inspersed in the upper part of the hymenium, and by the grey to dark brown mature ascospores. The I+ persistent blue reaction of thalline and subapothecial hyphae, regarded as diagnostic for *A. spectabile* by Coppins & James (1979) was also not observed in the new species. The two species may also differ chemically: Huneck & Follmann (1969) report three unidentified substances in *A. spectabile* but no chemical constituents at all were detected by t.l.c. in the new species.

In Tasmania, there are no species easily confused with *A. subspectabile* which is well-characterised by its relatively small, convex, pruinose apothecia and densely muriform, ± ovate spores. Its micro-habitat (see below) is also not shared by any other known species of *Arthothelium*, although it could well co-occur with several species of the genus *Arthonia*, particularly *A. apteropteridis*.

Arthothelium subspectabile is a rare, easily overlooked species, known from only three localities in cool temperate rainforest in western Tasmania. It occurs on the dry, sheltered and deeply shaded trunks of old mature trees (*Nothofagus cunninghamii* and *Lagarostrobos franklinii*) and grows on rough, fissured bark or on decorticated wood. It is found in the microhabitats typically colonised by the *Lecanactis abietina* – *Sagenidium molle* community (Kantvilas 1988: 400) and additional lichens with which it can be associated include *Lepraria* spp., *Bactrospora dryina*, *Chaenotheca brunneola* and species of *Chaenothecopsis*.

Specimens examined: Australia: Tasmania: approximately 3 km south of Teepookana, on *Lagarostrobos franklinii* in rainforest, 220 m, *G. Kantvilas 663/90*, 7 November 1990 (HO, herb. Vězda); Badger Creek, c. 2.5 km south of Greystone Bluff, on trunk of mature *Lagarostrobos franklinii* in rainforest, 280 m, *G. Kantvilas 78/89*, 17 February 1989 (HO).

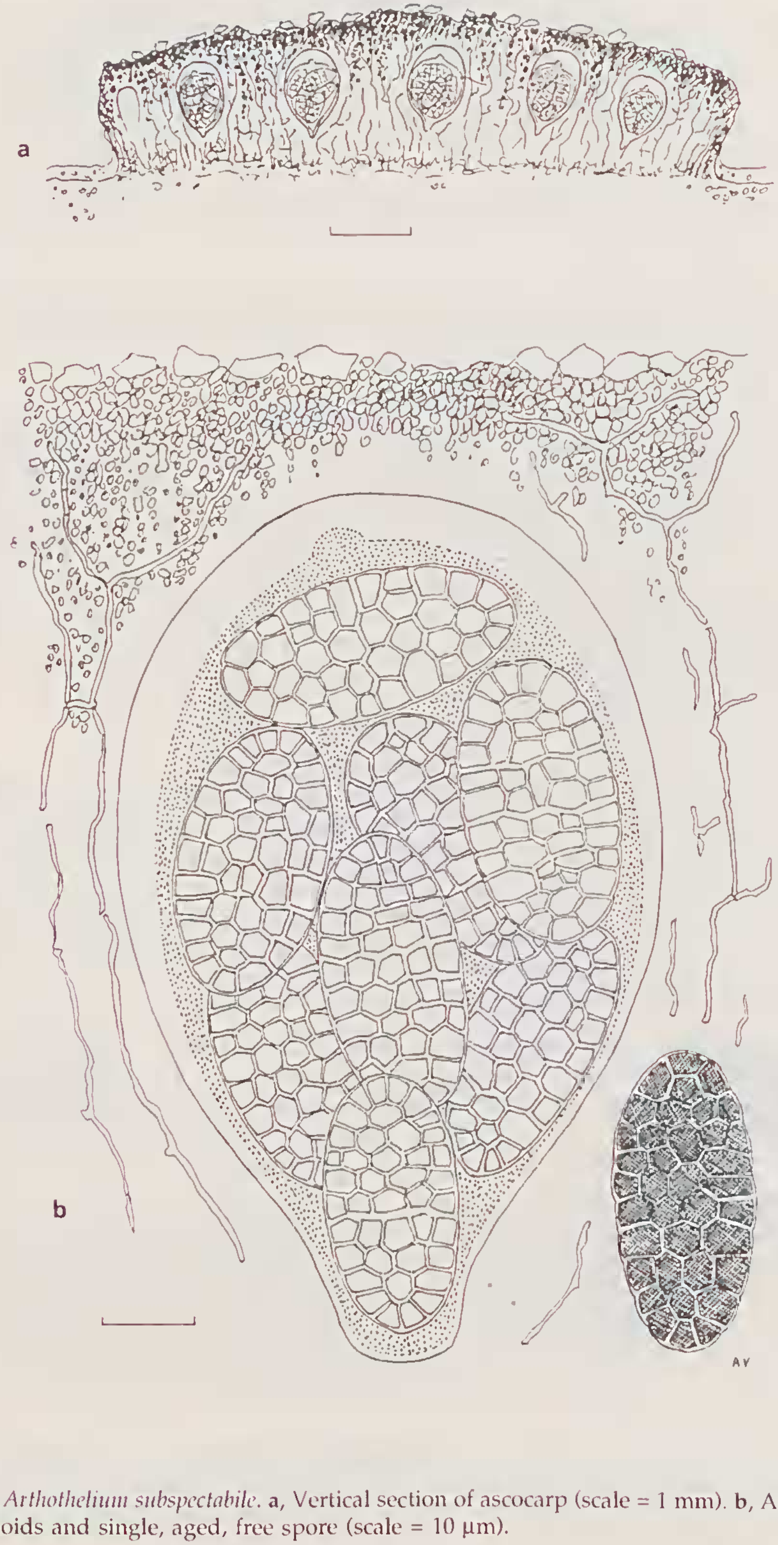

Figure 3. *Arthothelium subspectabile*. **a**, Vertical section of ascocarp (scale = 1 mm). **b**, Ascus with paraphysoids and single, aged, free spore (scale = 10 µm).

4. Gyalideopsis graminicola *Vězda & Kantvilas*, sp. nov.

Thallus haud visibilis, in textura foliorum graminis emortui vigens. Algae globosae, virides, insulatim agglomeratae. Hyphophori nulli inventi. Apothecia orbicularia, 0.3–0.5 mm lata, circa 0.1 mm alta, late adnata, basin versus constricta, gyalectoidea, discis concavis vel planis, nigrofuscis, in statu sicco papillis minutissimis nigris munitis, in statu madido fuscis vel rufofuscis subpellucidisque, marginibus persistenter elevatis, integris, nigris, pro parte nitidis. Excipulum 50–60 µm crassum, fuscum vel subhyalinum. Hypothecium circa 40 µm altum, hyalinum. Hymenium (100–)120–150 µm altum, incoloratum. Paraphyses sparsae, anastomosantes, tubulis circa 0.8 µm crassis. Asci clavati, non-amyloidei, octospori. Ascosporae ellipsoideae, hyalinae, 35–50 µm longae, 15–22 µm latae, muriformes, cellulis numerosis, 2–5 µm crassis, mox tamen in cellulas liberas decompositae, conidia singula, bacillaria, 2–2.2 µm longa, 0.5 µm lata producentes.

Type: Australia: Tasmania: northern slopes of Mt Jerusalem, on dead *Poa* tussock in alpine grassland, 1280 m, *G. Kantvilas 114/87*, 8 December 1987 (holo HO; iso herb. Vězda).

Thallus not apparent to absent, growing within the tissue of dead grass leaves. Photobiont green, unicellular, cells subglobose and clustered in colonies. Hyphophores not found. Apothecia circular, 0.3–0.5 mm wide, c. 0.1 mm tall, broadly adnate, constricted at the base, gyalectoid; disc concave to plane, blackish brown, with minute black papillae when dry, brown to reddish brown and subpellucid when moist, especially in younger apothecia; margins persistently raised, entire, black, partly glossy. Excipulum 50–60 µm thick, brown to subhyaline. Hypothecium c. 40 µm thick, hyaline. Hymenium (100–)120–150 µm thick, colourless; paraphyses sparse, anastomosing, 0.8 µm thick; asci clavate, non-amyloid, eight-spored. Ascospores ellipsoid, hyaline, 35–50 x 15–22 µm, strongly muriform with numerous cells to 2–5 µm wide, with age becoming rather greyish-brown and soon disintegrating into free cells, each producing a single bacillar conidium, 2–2.2 x 0.5 µm. Figure 4–5 (anatomy).

Remarks: *Gyalideopsis* is a genus of the Gomphillaceae and currently comprises over 30 species [see James (1975), Galloway (1985) and Vězda & Poelt (1987) for generic characteristics]. The genus is widely distributed and ranges from cool to tropical climates, with an apparent concentration of taxa in tropical America (Kalb & Vězda 1988). Three species are known from subtropical rainforest in Australia, including two corticolous taxa (Vězda & Hafellner 1988) and one as yet undescribed foliicolous species. A further species, also undetermined, is recorded from mosses in New Zealand by Galloway (1985).

The new species is characterised by the absence of a visible thallus, the gyalectoid, plane apothecia and the eight-spored asci with muriform spores. The typically minutely papillose apothecial disc arises from the gradual protrusion of mature asci: the outermost cells of the uppermost spore form a paraplechtenchymatous cortex whilst the remainder of the spore disintegrates into conidia (Figure 5). Such a means of conidial formation from muriform spores is a relatively frequent phenomenon in some foliicolous and corticolous lichens, especially in the families Gomphillaceae and Ectolechiaceae (Santesson 1952: 29).

Gyalideopsis graminicola is a very rare species known only from the type locality, a steep, exposed, badly eroded slope with alpine grassland – heathland mosaic over dolerite, burnt by wildfire approximately 30 years ago. Alpine grassland tends to be an uncommon vegetation formation in Tasmania and usually supports only a depauperate lichen flora of species of *Cladonia* and *Cladia*, and *Lecanora broccha*. The new species was locally common on dead, weather-bleached *Poa* tussocks and mats of dried leaves, and was not associated with any other lichens.

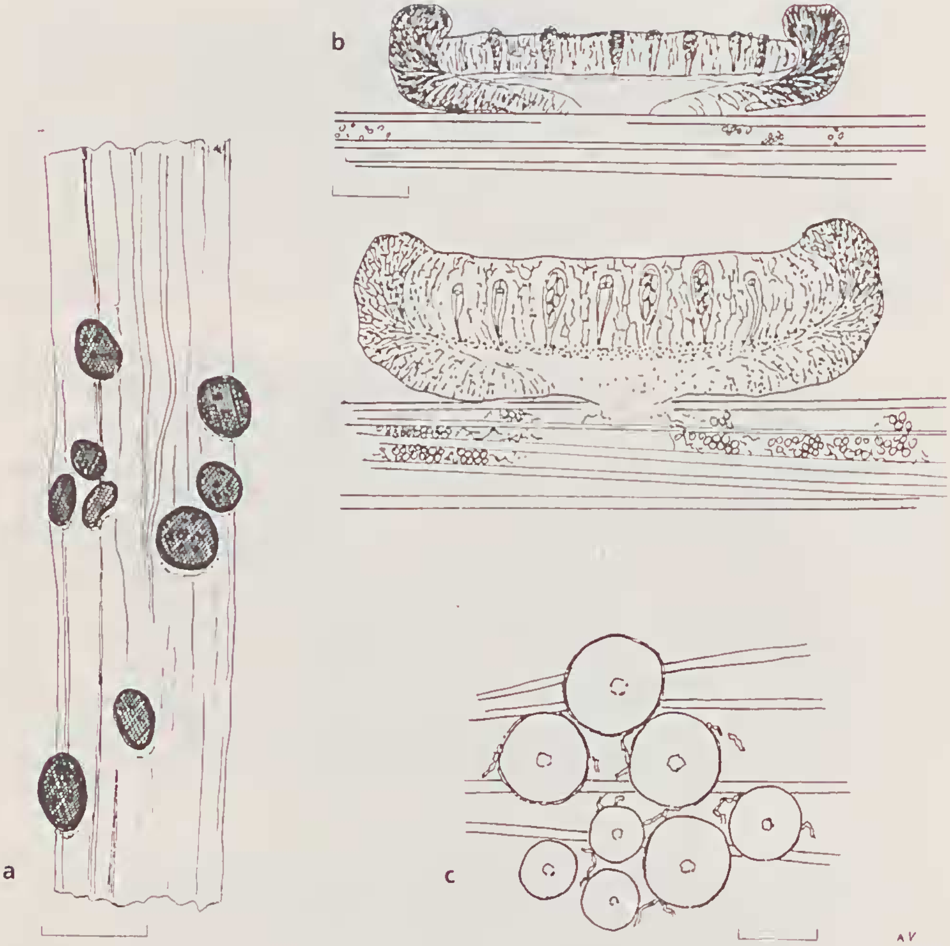

Figure 4. *Gyalideopsis graminicola*. **a**, Habit (scale = 1 mm). **b**, Vertical section of apothecium in dry state (above) and in moist state (below) (scale = 0.1 mm). **c**, Algal cells with mycelial hyphae (scale = 10 µm).

5. Lecanactis subpremnea *Kantvilas & Vězda*, sp. nov.

Ex affinitate *Lecanactidis premneae* (Ach.) Arnold a qua differt paraphysibus in apicibus haud nigrofuscis in KOH, sporisque valde majoribus, 30–52 µm longis.

Type: Australia: Tasmania: Corinna Road, c. 6 km west of Waratah, on old trunk of *Nothofagus cunninghamii* in rainforest, 600 m, *G. Kantvilas 71/82*, 9 February 1982 (holo HO; iso BM, herb. Vézda, GZU, WELT).

Thallus effuse, rather scurfy, dull olivaceous grey-green, very thin to ± absent. Apothecia black, matt, lecideine, to 1.7 mm diameter; margin prominent, persistent, inrolled and lightly greyish pruinose on the inner edge in very young apothecia; disc concave and ± pruinose only when very young, soon becoming epruinose, plane or

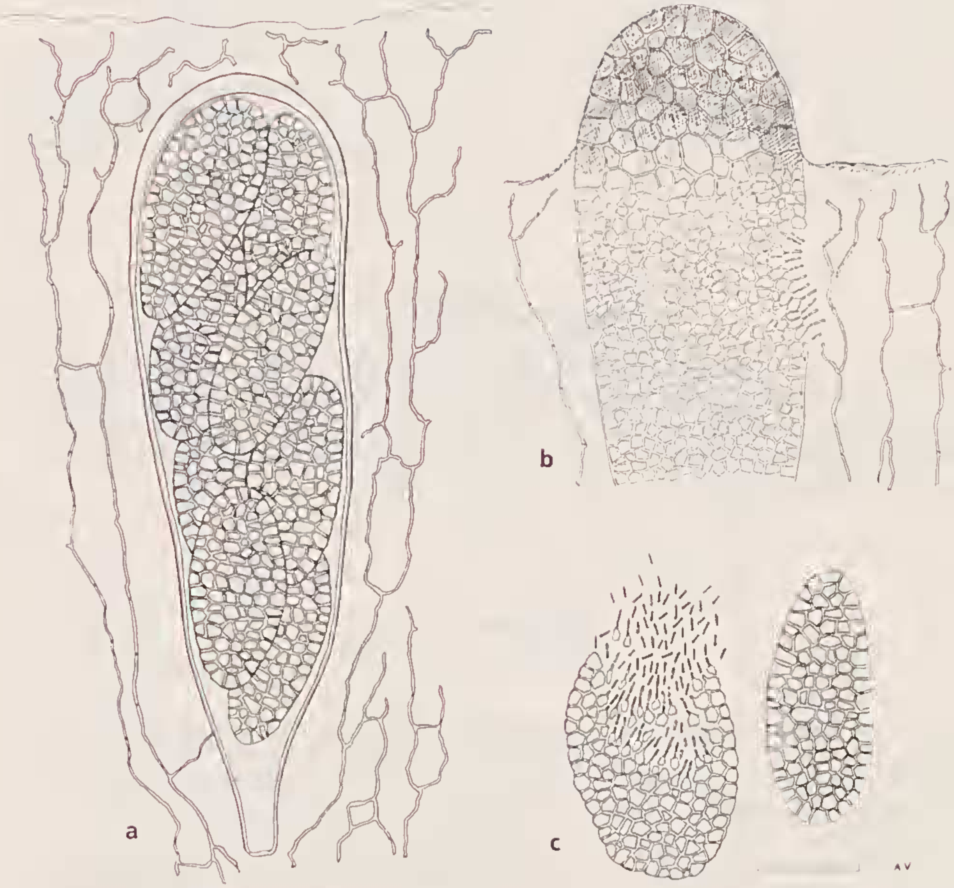

Figure 5 *Gyalideopsis graminicola*. **a**, Ascus with paraphyses; **b**, Old ascus with paraplectenchymatous cortex and decomposed spores, with cells producing conidia; **c**, Spores, LHS producing conidia. (scale = 10 µm).

undulate, sometimes ± excavate when very old. Exciple opaque dark brown to brownish black, slightly paler brown at the inner edges, (80–)85–110 µm thick laterally, K+ olivaceous green, mainly at the edges. Epithecium (6–)10–20 µm thick, dark yellow-brown, colourless to very pale yellow brown in KOH. Hymenium colourless, 90–120 (–130) µm thick. Hypothecium colourless, (60–)80–110 µm thick. Paraphyses numerous, flexuous, 1.2–1.5 µm thick, simple to sparingly branched towards the apices; apices pigmented yellow-brown, colourless in KOH, usually swollen to c. 2.5 µm. Asci narrow cylindrical, non-amyloid, eight-spored, (65–)80–100 x (13–)16–18 µm. Ascospores fusiform, straight or occasionally curved, with rounded apices, (30–)34–52 x 4–7.5 µm, 7–9 (–10) septate, walls to 0.8 µm thick.

SPECIMENS EXAMINED: AUSTRALIA: TASMANIA: Near Granville Harbour, on *Atherosperma moschatum* in rainforest, 140 m, *G. Kantvilas s.n.*, 4 March 1982 (HO); Anthony Road, on dry trunk of *Dicksonia antarctica* in rainforest, 450 m, *G. Kantvilas 215/91*, 10 May 1991 (HO, LSU, herb. Vězda). VICTORIA: Cement Creek, 37° 42' S, 145° 44' E, on *Nothofagus cunninghamii* in rainforest, *G. Kantvilas s.n.*, 6 October 1983 (HO).

Remarks: *Lecanactis subpremnea* is closely related to the western European species, *L. premnea*, from which it differs chiefly by the pigmentation of the paraphyses (these remain apically black in KOH in *L. premnea*) and the significantly larger spores (17–27 x 4–7 µm in *L. premnea*). The new species is conspicuous but very rare. It is known from cool temperate rainforest in Victoria and western Tasmania where it forms widespreading colonies to c. 20 cm wide on the shaded, dry trunks of mature trees, as well as on the dry fibrous trunks of tree ferns (*Dicksonia antarctica*). *Lecanactis premnea* occupies an analogous niche on old trees in Europe (James et al. 1977).

Acknowledgments

We thank Dr S.J. Jarman for comments on the manuscript, Mr M. Wedin for the gift of some selected specimens, and the Mapping Branch of the Tasmanian Forestry Commission for reproduction of figures. Financial support to the first author from the National Rainforest Conservation Program and the Office of the National Estate is gratefully acknowledged.

References

Coppins, B.J. & James, P.W. (1979) New or interesting British lichens III. *Lichenologist* 11: 27–45.

Galloway, D.J. (1985) *Flora of New Zealand Lichens* (Government Printer: Wellington).

Huneck, S. & Follman, G. (1969) Mitteilungen über Flechteninhaltsstoffe. LXIX. Zur Phytochemie und Chemotaxonomie der Arthoniaceae. *Österr. Bot. Z.* 117: 163–175.

James, P.W. (1975) The genus *Gyalideopsis* Vězda in Britain. *Lichenologist* 7: 155–161.

James, P.W., Hawksworth, D.L. & Rose, F. (1977) Lichen communities in the British Isles: A preliminary conspectus. Pp. 295–413 in M.R.D. Seaward (ed.), *Lichen Ecology* (Academic Press: London, New York, San Francisco).

Kalb, K. & Vězda, A. (1988) Neue oder bemerkenswerte Arten der Flechtenfamilie Gomphillaceae in der Neotropis. *Bibliotheca Lichenologica* 29: 1–80.

Kantvilas, G. (1988) Tasmanian rainforest lichen communities: a preliminary classification. *Phytocoenologia* 16: 391–428.

Santesson, R. (1952) Foliicolous Lichens I. A revision of the taxonomy of the obligately foliicolous, lichenized fungi. *Symb. Bot. Upsal.* 12: 1–590.

Tehler, A. (1990) A new approach to the phylogeny of Euascomycetes with a cladistic outline of Arthoniales focussing on Roccellaceae. *Can. J. Bot.* 68: 2458–2492.

Vězda, A. & Hafellner, J. (1988) Zwei neue *Gyalideopsis* – Arten aus den Regenwäldern Australiens: *G. pertucida* und *G. rogersii* (lichenisierte Ascomycetes, Gomphillaceae). *Preslia* 60: 239–243.

Vězda, A. & Poelt, J. (1987) Flechtensystematische Studien XII. Die Familie Gomphillaceae und ihre Gliederung. *Folia Geobot. Phytotax.* 22: 179–198.

Manuscript received 9 July 1991

Manuscript accepted 16 December 1991

HANGUANACEAE

1147 **Hanguana malayana** (Jack) Merr.; Backer, Fl. Males. I 4^3 (1951) 249; Keng, Gard. Bull. Sing. 40 (1987) 125 — *Susum anthelminticum* Bl. *ex* R. & S.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 170; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 131; Ridley, Fl. Mal. Pen. 4 (1924) 369; Burkill, Dict. (1935) 2109; — *Susum malayanum* Planch. *ex* Hook. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 132; Ridley, Fl. Mal. Pen. 4 (1924) 369; Burkill, Dict. (1935) 2109; Henderson, Mal. Wild Fl. Monoc. (1954) 207.

HERNANDIACEAE

1148 **Hernandia nymphaeifolia** (Presl) Kubitzki; Ng, Tree Fl. Malaya 2 (1973) 245; Corner, Ways. Trees, 3rd ed. (1988) 363; Keng, Conc. Fl. Sing. (1990) 20; — *H. peltata* Meissn.; Ridley, Fl. Mal. Pen. 3 (1924) 138; Burkill, Dict. (1935) 1141; — *H. ovigera* L.; Corner, Ways. Trees 1st ed. (1940) 323.

1149 **Illigera trifoliata** (Griff.) Dunn.; Ng, Tree Fl. Malaya 2 (1973) 247; Keng, Conc. Fl. Sing. (1990) 20; — *I. appendiculata* (*non* Bl.) King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Ridley, Fl. Mal. Pen. 3 (1924) 139; Henderson, Mal. Wild Fl. Dic. (1959) 445.

HYDROCHARITACEAE

1150 **Blyxa alternifolia** (Miq.) Hartog; den Hartog, Fl. Males. I 5^4 (1958) 392; Keng, Gard. Bull. Sing. 40 (1987) 114; — *Enhydrias angustipetala* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 4; Ridley, Fl. Mal. Pen. 4 (1924) 4.

1151 **Blyxa auberti** Rich.; den Hartog, Fl. Males. I 5^4 (1958) 390; Keng, Gard. Bull. Sing. 40 (1987) 114; — *B. malayana* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 4; Ridley, Fl. Mal. Pen. 4 (1924) 3; Henderson, Mal. Wild Fl. Monoc. (1954) 7.

1152 **Enhalus acoroides** (L. *f.*) Royle; Henderson, Mal. Wild Fl. Monoc. (1954) 10; den Hartog, Fl. Males. I 5^4 (1958) 402; den Hartog, The Sea-grasses of the World (1970) 215; Keng, Gard. Bull. Sing. 40 (1987) 114; — *E. koenigii* Rich.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 152; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 6, Ridley, Fl. Mal. Pen. 4 (1924) 4.

1153 **Halophila beccarrii** Aschers.; den Hartog, Fl. Males. I 5^4 (1958) 411; den Hartog, The Sea-grasses of the World (1970) 261.

1154 **Halophila minor** (Zoll.) Hartog; Sachet & Fosberg, Taxon 22 (1973) 439; den Hartog, Fl. Males. I 5^4 (1958) 410; Keng, Gard. Bull. Sing. 40 (1987) 114; — *H. ovata* Gaud.; den Hartog, The Sea-grasses of the World (1970) 251; —
.

1155 **Halophila ovalis** (R. Br.) Hook. *f.*; Henderson, Mal. Wild Fl. Monoc. (1954) 11; den Hartog, Fl. Males. I 5^4 (1958) 408; den Hartog, The Sea-grasses of the World (1970) 240; Keng, Gard. Bull. Sing. 40 (1987) 114; — *H. ovata* (*non* Gaud.) Aschers.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 152; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 6; Ridley, Fl. Mal. Pen. 4 (1924) 4.

1156 **Halophila spinulosa** (R. Br.) Aschers.; Sinclair, Gard. Bull. Sing. 15 (1956) 30; den Hartog, Fl. Males. I 5^4 (1958) 412; den Hartog, The Sea-grasses of the World (1970) 263; Keng, Gard. Bull. Sing. 40 (1987) 114.

1157 **Hydrilla verticillata** (L. *f.*) Royle; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 152; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 3; Ridley, Fl. Mal. Pen. 4 (1924) 1; den Hartog, Fl. Males. I 5^4 (1958) 385; Cook & Lüönd, Aquatic Botany 13 (1982) 485; Keng, Gard. Bull. Sing. 40 (1987) 114.

1158 **Thalassia hemprichii** (Ehrenb.) Aschers.; Sinclair, Gard. Bull. Sing. 14 (1953) 35; den Hartog, Fl. Males. I 5^4 (1958) 406; den Hartog, The Sea-grasses of the World (1970) 232; Keng, Gard. Bull. Sing. 40 (1987) 114.

HYDROPHYLLACEAE

1159 **Hydrolea zeylanica** (L.) Vahl; Ridley, Fl. Mal. Pen. 2 (1923) 438; Burkill, Dict. (1935) 1213; Henderson, Mal. Wild Fl. Dic. (1959) 308; Backer, Fl. Males. I 4^3 (1951) 207; Keng, Conc. Fl. Sing. (1990) 174.

HYPERICACEAE

1160 **Cratoxylum arborescens** (Vahl) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 46; Ridley, Fl. Mal. Pen. 1 (1922) 153; Gogelein, Blumea 15 (1967) 471; Kochummen, Tree Fl. Malaya 2 (1973) 248; Corner, Ways. Trees, 3rd ed. (1988) 365; Keng, Conc. Fl. Sing. (1990) 47.

1161 **Cratoxylum cochinchinense** (Lour.) Bl.; Gogelein, Blumea 15 (1967) 463; Kochummen, Tree Fl. Malaya 2 (1973) 251; Corner, Ways. Trees, 3rd ed. (1988) 365; Keng, Conc. Fl. Sing. (1990) 47; — *C. polyanthum* Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 46; Ridley, Fl. Mal. Pen. 1 (1922) 152; — *C. ligustrinum* (Spach) Bl.; Corner, Ways. Trees 1st ed. (1940) 327.

1162 **Cratoxylum formosum** (Jack) Dyer; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 46; Ridley, Fl. Mal. Pen. 1 (1922) 153; Gogelein, Blumea 15 (1967) 467; Kochummen, Tree Fl. Malaya 2 (1973) 251; Corner, Ways. Trees, 3rd ed. (1988) 365; Keng, Conc. Fl. Sing. (1990) 47.

1163 **Cratoxylum maingayi** Dyer; Gogelein, Blumea 15 (1967) 470.

1164 **Hypericum japonicum** Thunb. *ex* Murray; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 46; Ridley, Fl. Mal. Pen. 1 (1922) 152; Henderson, Mal. Wild Fl. Dic. (1959) 35; Kochummen, Tree Fl. Malaya 2 (1973) 248; Keng, Conc. Fl. Sing. (1990) 47.

HYPOXIDACEAE

1165 **Curculigo capitulata** (Lour.) Kuntze; Geerinck. fl. Males. I 11^2 (1993) 367; — *C. recurvata* Dryand.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley. Mat. Fl. Mal. Pen. (Monoc.) 2 (12907) 65; Ridley, fl. Mal. Pen. 4 (1924) 299; Keng, Gard. Bull. Sing. 40 (1987) 121.

1166 **Curculigo latifolia** Dryand.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 66; Ridley, Fl. Mal. Pen. 4 (1924) 300; Henderson, Mal. Wild Fl. Monoc. (1954) 167; Geerinck, Fl. Males. I 11^2 (1993) 369; — *C. villosa* Wall. *ex* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 66; Ridley, fl. Mal. Pen. 4 (1924) 300; Keng, Gard. Bull. Sing. 40 (1987) 121.

ICACINACEAE

1167 **Cantleya corniculata** (Becc.) Howard; Sleumer, Fl. Males. I 7^1 (1971) 51; Kochummen, Tree Fl. Malaya 3 (1978) 110; — *C. johorica* Ridl.; Ridley. Fl. Mal. Pen. 1 (1922) 436; — *Stemonurus corniculatus* (Becc.) Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 297.

1168a **Gomphandra quadrifida** (Bl.) Sleum. *var.* **angustifolia** (King) Sleum.; Sleumer. Fl. Males. I 7^1 (1971) 34; Kochummen, Tree Fl. Malaya 3 (1978) 111; — *G. lanceolata* (Mast.) King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; — *G. lanceolata* (Mast.) King *var. angustifolia* King; Ridley. Fl. Mal. Pen. 1 (1922) 428.

1168b **Gomphandra quadrifida** *var.* **ovalifolia** (Ridl.) Sleum.; Sleumer, Fl. Males. I 7^1 (1971) 34; Kochummen, Tree Fl. Malaya 3 (1978) 111; — *G. penangiana* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; — *G. affinis* (Miers) Mast.; Ridley, Fl. Mal. Pen. 1 (1922) 427.

1169 **Gonocaryum gracile** Miq.; Sleumer. Fl. Males. I 7^1 (1971) 17; Kochummen, Tree Fl. Malaya 3 (1978) 113; Keng, Conc. Fl. Sing. (1990) 126; *G. longeracemosum* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, — Fl. Mal. Pen. 1 (1922) 431; Burkill, Dict. (1935) 1099.

1170 **Iodes ovalis** Bl.; Sleumer, Fl. Males. I 7^1 (1971) 68; Kochummen. Tree Fl. Malaya 3 (1978) 109; Keng, Conc. Fl. Sing. (1990) 126; — *I. oblonga* Planch.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 435.

1171 **Iodes velutina** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 434; Sleumer, Fl. Males. I 7^1 (1971) 72; Kochummen. Tree Fl. Malaya 3 (1978) 109; Keng, Conc. Fl. Sing. (1990) 126.

1172 **Phytocrene bracteata** Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 432; Sleumer, Fl. Males. I 7^1 (1971) 85; Kochummen, Tree Fl. Malaya 3 (1978) 109; Keng. Conc. Fl. Sing. (1990) 126.

1173 **Platea latifolia** Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 426; Burkill, Dict. (1935) 1768; Sleumer, Fl. Males. I 7^1 (1971) 11; Kochummen, Tree Fl. Malaya 3 (1978) 114; Keng, Conc. Fl. Sing. (1990) 126.

1174 **Stemonurus malaccensis** (Mast.) Sleum.; Sleumer, Fl. Males. I 7^1 (1971) 60; Kochummen, Tree Fl. Malaya 3 (1978) 117; Keng, Conc. Fl. Sing. (1990) 126; — *S. capitatus* Becc.; Ridley, Fl. Mal. Pen. 1 (1922) 431; Burkill, Dict. (1935) 2074.

1175 **Stemonurus scorpioides** Becc.; Ridley, Fl. Mal. Pen. 5 (1925) 296; Burkill, Dict. (1935) 2074; Sleumer, Fl. Males. I 7^1 (1971) 58; Kochummen, Tree Fl. Malaya 3 (1978) 117; Keng, Conc. Fl. Sing. (1990) 126; — *Lasianthera secundiflora* [*non* (Bl.) Miq.] King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; — *S. secundiflorus* (*non* Bl.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 430.

IRIDACEAE

A 1176 **Trimezia martinicensis** (Jacq.) Herbert; Henderson, Mal. Wild Fl. Monoc. (1954) 168; Keng, Gard. Bull. Sing. 40 (1987) 123; Corlett, J. Biogeog. (1988) 663.

IXONANTHACEAE

1177 **Ixonanthes icosandra** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 325; Corner, Ways. Trees 1st ed. (1940) 221; Cockburn, Tree Fl. Malaya 1 (1972) 307; Kool, Fl. Males. I 10^3 (1988) 625; Corner, Ways. Trees, 3rd ed. (1988) 256; Keng, Conc. Fl. Sing. (1990) 94.

1178 **Ixonanthes reticulata** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 326; Corner, Ways. Trees 1st ed. (1940) 221; Cockburn, Tree Fl. Malaya 1 (1972) 307; Kool, Fl. Males. I 10^3 (1988) 626; Corner, Ways. Trees, 3rd ed. (1988) 256; Keng, Conc. Fl. Sing. (1990) 94.

JUGLANDACEAE

1179 **Engelhardtia serrata** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 149; Jacobs, Fl. Males. I 6^1 (1960) 150; Ng, Tree Fl. Malaya 1 (1972) 236; Corner, Ways. Trees, 3rd ed. (1988) 370; Keng, Conc. Fl. Sing. (1990) 66; — *E. wallichiana* [*non* (Lindl. *ex* Wall.) DC.] Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 149; — *E. nudiflora* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 369; Corner, Ways. Trees 1st ed. (1940) 333.

LABIATAE

1180 **Anisomeles indica** (L.) O. Ktze.; Keng, Fl. Males. I 8^2 (1977) 328; Keng, Conc. Fl. Sing. (1990) 196; — *A. ovata* R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Ridley, Fl. Mal. Pen. 2 (1923) 649.

A 1181 **Hyptis brevipes** Poit.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Ridley, Fl. Mal. Pen. 2 (1923) 645; Henderson, Mal. Wild Fl. Dic. (1959) 390; Keng, Fl. Males. I 8^2 (1977) 369; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 196.

A 1182 **Hyptis capitata** Jacq.; Henderson, Mal. Wild Fl. Dic. (1959) 391; Keng, Fl. Males. I 8^2 (1977) 369; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 196.

A 1183 **Hyptis suaveolens** (L.) Poit.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 124; Ridley, Fl. Mal. Pen. 2 (1923) 645; Henderson, Mal. Wild Fl. Dic. (1959) 391; Keng, Fl. Males. I 8^2 (1977) 371; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 197.

A 1184 **Leonotis nepetifolia** (L.) Ait.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Sinclair, Gard. Bull. Sing. 14 (1953) 34; Keng, Fl. Males. I 8^2 (1977) 335; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 197 *"nepetaefolia"*.

A 1185 **Leonurus sibiricus** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Ridley, Fl. Mal. Pen. 2 (1923) 651; Henderson, Mal. Wild Fl. Dic. (1959) 389; Keng, Fl. Males. I 8^2 (1977) 336; Keng, Conc. Fl. Sing. (1990) 197.

1186 **Leucas linifolia** Spreng.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Keng, Conc. Fl. Sing. (1990) 197; — *L. lavendulifolia* J. E. Sm.; Ridley, Fl. Mal. Pen. 2 (1923) 651; Burkill, Dict. (1935) 1338; Henderson, Mal. Wild Fl. Dic. (1959) 393; Keng, Fl. Males. I 8^2 (1977) 338.

1187 **Leucas zeylanica** (L.) R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Ridley, Fl. Mal. Pen. 2 (1923) 650; Burkill, Dict. (1935) 1338; Henderson, Mal. Wild Fl. Dic. (1959) 392; Keng, Fl. Males. I 8^2 (1977) 336; Keng, Conc. Fl. Sing. (1990) 197.

1188 **Ocimum americanum** L.; Keng, Fl. Males. I 8^2 (1977) 376; Keng, Conc. Fl. Sing. (1990) 197; — *O. canum* Sims; Ridley, Fl. Mal. Pen. 2 (1923) 644; Burkill, Dict. (1935) 1574.

1189 **Ocimum basilicum** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Ridley, Fl. Mal. Pen. 2 (1923) 643; Henderson, Mal. Wild Fl. Dic. (1959) 395; Keng, Fl. Males. I 8^2 (1977) 377; Keng, Conc. Fl. Sing. (1990) 197.

1190 **Ocimum tenuiflorum** L.; Keng, Fl. Males. I 8^2 (1977) 378; Press & Sivarajan, Bull. Brit. Mus. Nat. Hist. (Bot.) 19 (1989) 116; Keng, Conc. Fl. Sing. (1990) 197; — *O. sanctum* L.; Ridley, Fl. Mal. Pen. 2 (1923) 643; Burkill, Dict. (1935) 1575.

1191 **Plectranthus scutellarioides** (L.) R. Br.; Keng, Fl. Males. I 8^2 (1977) 389; Keng, Conc. Fl. Sing. (1990) 197; — *Coleus atropurpureus* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 124; Ridley, Fl. Mal. Pen. 2 (1923) 646; Burkill, Dict. (1935) 635; Henderson, Mal. Wild Fl. Dic. (1959) 396; — *Coleus blumei* Benth.; Ridley, Fl. Mal. Pen. 2 (1923) 646, Burkill, Dict. (1935) 635; Henderson, Mal. Wild Fl. Dic. (1959) 396; — *Solenostemon scutellarioides* (L.) Codd; Smith, Fl. Vit. Nov. 5 (1991) 222.

1192 **Pogostemon auricularius** (L.) Hassk.; Keng, Fl. Males. I 8^2 (1977) 356; Keng, Conc. Fl. Sing. (1990) 198; *Dysophylla auricularia* (L.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 1—25; Ridley, Fl. Mal. Pen. 1 (1922) 648; Henderson, Mal. Wild Fl. Dic. (1959) 393.

LAURACEAE

1193 **Actinodaphne glomerata** (Bl.) Nees; Ridley, Fl. Mal. Pen. 3 (1924) 108; Kochummen, Tree Fl. Malaya 4 (1989) 104; Keng, Conc. Fl. Sing. (1990) 18.

1194 **Actinodaphne macrophylla** (Bl.) Nees; Kochummen, Tree Fl. Malaya 4 (1989) 105; Keng, Conc. Fl. Sing. (1990) 18; — *A. maingayi* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 108; Corner, Ways. Trees 1st ed. (1940) 345; Corner, Ways. Trees, 3rd ed. (1988) 382.

1195 **Actinodaphne malaccensis** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 108; Kochummen, Tree Fl. Malaya 4 (1989) 105; Keng, Conc. Fl. Sing. (1990) 18; — *A. hullettii* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 110; Keng, Conc. Fl. Sing. (1990) 18.

1196 **Actinodaphne pruinosa** Nees; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 110 (*incl. var. kunstleri* Gamble); Kochummen, Tree Fl. Malaya 4 (1989) 106; Keng, Conc. Fl. Sing. (1990) 18.

1197 **Alseodaphne bancana** Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 98; Kochummen, Tree Fl. Malaya 4 (1989) 111; Keng, Conc. Fl. Sing. (1990) 18; — *A. decipiens* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131.

1198 **Alseodaphne intermedia** Kostermans, Candollea 28 (1973) 113; Kochummen, Tree Fl. Malaya 4 (1989) 113.

1199 **Alseodaphne nigrescens** (Gamble) Kostermans; Kochummen, Tree Fl. Malaya 4 (1989) 114; — *Dehaasia nigrescens* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 88; Keng, Conc. Fl. Sing. (1990) 19.

1200 **Beilschmiedia kunstleri** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 83; Kochummen, Tree Fl. Malaya 4 (1989) 120; Keng, Conc. Fl. Sing. (1990) 18.

1201 **Beilschmiedia madang** Bl.; Kochummen, Tree Fl. Malaya 4 (1989) 120; Keng, Conc. Fl. Sing. (1990) 18; — *B. malaccensis* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130; Ridley, Fl. Mal. Pen. 3 (1924) 83; — *B. curtisii* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 84; — *B. scortechinii* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 84.

1202 **Cassytha filiformis** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 137; Henderson, Mal. Wild Fl. Dic. (1959) 444; Kochummen, Tree Fl. Malaya 4 (1989) 102; Keng, Conc. Fl. Sing. (1990) 18.

1203 **Cinnamomum iners** Reinw. *ex* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 92 (*incl. var. angustifolium* Ridl.); Corner, Ways. Trees, 3rd ed. (1988) 377; Kochummen, Tree Fl. Malaya 4 (1989) 126; Keng, Conc. Fl. Sing. (1990) 18; — *C. nitidum* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; — *C. paraneuron* Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 92.

1204 **Cinnamomum javanicum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130; Ridley, Fl. Mal. Pen. 3 (1924) 94; Corner, Ways. Trees, 3rd ed. (1988) 378; Kochummen, Tree Fl. Malaya 4 (1989) 126; Keng, Conc. Fl. Sing. (1990) 18.

1205 **Cinnamomum subavenium** MIQ.; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 131; KENG, Conc. Fl. Sing. (1990) 18; — *C. ridleyi* GAMBLE; RIDLEY, Fl. Mal. Pen. 3 (1924) 93.

1206 **Cryptocarya caesia** BL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 81; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 133; KENG, Conc. Fl. Sing. (1990) 18.

1207 **Cryptocarya ferrea** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 130; RIDLEY, Fl. Mal. Pen. 3 (1924) 79; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 134; KENG, Conc. Fl. Sing. (1990) 18.

1208 **Cryptocarya griffithiana** WIGHT; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 130; RIDLEY, Fl. Mal. Pen. 3 (1924) 77; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 134; KENG, Conc. Fl. Sing. (1990) 18.

1209 **Cryptocarya impressa** MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 130; RIDLEY, Fl. Mal. Pen. 3 (1924) 78; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 135; KENG, Conc. Fl. Sing. (1990) 19.

1210 **Cryptocarya kurzii** HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 80; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 135; KENG, Conc. Fl. Sing. (1990) 19; — *C. argentea* GAMBLE; RIDLEY, Fl. Mal. Pen. 3 (1924) 81.

1211 **Cryptocarya rugulosa** HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 78; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 136.

1212 **Dehaasia incrassata** (JACK) KOSTERM.; CORNER, Ways. Trees, 3rd ed. (1988) 380; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 139; KENG, Conc. Fl. Sing. (1990) 19; — *D. microcarpa* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 130; RIDLEY, Fl. Mal. Pen. 3 (1924) 87.

1213 **Lindera lucida** (BL.) BOERL.; CORNER, Ways. Trees, 3rd ed. (1988) 383; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 146; KENG, Conc. Fl. Sing. (1990) 19; — *L. malaccensis* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 132; RIDLEY, Fl. Mal. Pen. 3 (1924) 133; — *L. selangorensis* RIDL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 134.

1214 **Litsea accedens** (BL.) BOERL.; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 151; KENG, Conc. Fl. Sing. (1990) 19; — *L. singaporensis* GAMBLE; RIDLEY, Fl. Mal. Pen. 3 (1924) 122.

1215 **Litsea castanea** HOOK. *f.*; KOSTERMANS, Reinwardtia 8 (1970) 89; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 152; — *L. quercina* GAMBLE, RIDLEY, Fl. Mal. Pen. 3 (1924) 131.

1216 **Litsea cordata** HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 118; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 154; KENG, Conc. Fl. Sing. (1990) 19.

1217 **Litsea costalis** (BL.) KOSTERM.; CORNER, Ways. Trees, 3rd ed. (1988) 384; KOCHUMMEN, Tree Fl. Malaya 4 (1989) 154; KENG, Conc. Fl. Sing. (1990) 19; — *Alseodaphne costalis* NEES; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 131; — *L. megacarpa* GAMBLE; RIDLEY, Fl. Mal. Pen. 3 (1924) 127.

1218 **Litsea costata** (Bl.) Boerl.; Kochummen, Tree Fl. Malaya 4 (1989) 154; Keng, Conc. Fl. Sing. (1990) 19; — *L. perakensis* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 122; — *L. kunstleri* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 125; — *L. patellaris* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 123; — *L. pustulata* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 122.

1219 **Litsea elliptica** Bl.; Kochummen, Tree Fl. Malaya 4 (1989) 156; Keng, Conc. Fl. Sing. (1990) 19; — *L. petiolata* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 119.

1220 **Litsea erectinervia** Kosterm.; Kochummen, Tree Fl. Malaya 4 (1989) 156; Keng, Conc. Fl. Sing. (1990) 19.

1221 **Litsea ferruginea** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 129; Kochummen, Tree Fl. Malaya 4 (1989) 156; Keng, Conc. Fl. Sing. (1990) 19; — *L. griffithii* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 129.

1222 **Litsea firma** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 116; Corner, Ways. Trees, 3rd ed. (1988) 385; Kochummen, Tree Fl. Malaya 4 (1989) 156; Keng, Conc. Fl. Sing. (1990) 19.

1223 **Litsea gracilipes** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 130; Kochummen, Tree Fl. Malaya 4 (1989) 158.

1224 **Litsea grandis** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 115; Corner, Ways. Trees, 3rd ed. (1988) 385; Kochummen, Tree Fl. Malaya 4 (1989) 158; Keng, Conc. Fl. Sing. (1990) 19.

1225 **Litsea lanceolata** (Bl.) Kosterm.; Kochummen, Tree Fl. Malaya 4 (1989) 159; Keng, Conc. Fl. Sing. (1990) 19; — *L. sarawacensis* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 130.

1226 **Litsea lancifolia** (Roxb.) Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 130; Maxwell, Gard. Bull. Sing. 35 (1983) 195; Kochummen, Tree Fl. Malaya 4 (1989) 160; Keng, Conc. Fl. Sing. (1990) 19.

1227 **Litsea machilifolia** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 126; Kochummen, Tree Fl. Malaya 4 (1989) 160; Keng, Conc. Fl. Sing. (1990) 19.

1228 **Litsea myristicaefolia** (Wall. *ex* Nees) Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 125; Corner, Ways. Trees, 3rd ed. (1988) 385; Kochummen, Tree Fl. Malaya 4 (1989) 161; Keng, Conc. Fl. Sing. (1990) 19.

1229 **Litsea ridleyi** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 120; Maxwell, Gard. Bull. Sing. 35 (1983) 195; Keng, Conc. Fl. Sing. (1990) 19.

1230 **Litsea robusta** Bl.; Ridley, Fl. Mal. Pen. 3 (1924) 129; Kochummen, Tree Fl. Malaya 4 (1989) 163; Keng, Conc. Fl. Sing. (1990) 19.

1231 **Litsea umbellata** (Lour.) Merr.; Corner, Ways. Trees, 3rd ed. (1988) 385; Kochummen, Tree Fl. Malaya 4 (1989) 166; Keng, Conc. Fl. Sing. (1990) 19; — *L. amara* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 117.

1232 **Neolitsea zeylanica** (Nees) Merr.; Ridley, Fl. Mal. Pen. 3 (1924) 132; Corner, Ways. Trees, 3rd ed. (1988) 386; Kochummen, Tree Fl. Malaya 4 (1989) 169; — *Litsea zeylanica* Nees; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132.

1233 **Nothaphoebe coriacea** Kosterm.; Kochummen, Tree Fl. Malaya 4 (1989) 170; Keng, Conc. Fl. Sing. (1990) 19.

1234 **Nothaphoebe umbelliflora** (Bl.) Bl.; Ridley, Fl. Mal. Pen. 3 (1924) 101; Kochummen, Tree Fl. Malaya 4 (1989) 172; Keng, Conc. Fl. Sing. (1990) 19; — *Alseodaphne umbelliflora* (Bl.) Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131.

1235 **Persea declinata** (Bl.) Kosterm.; Kochummen, Tree Fl. Malaya 4 (1989) 173; Keng, Conc. Fl. Sing. (1990) 19; — *Phoebe declinata* Nees; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 104.

1236 **Phoebe grandis** Merr.; Kochummen, Tree Fl. Malaya 4 (1989) 176; Keng, Conc. Fl. Sing. (1990) 19; — *P. opaca* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 131; Ridley, Fl. Mal. Pen. 3 (1924) 105 (*incl. var. cuspidata* Gamble); — *P. cuneata* Bl.; Ridley, Fl. Mal. Pen. 3 (1924) 106; — *P. kunstleri* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 105.

LECYTHIDACEAE

1237 **Barringtonia asiatica** (L.) Kurz; Whitmore, Tree Fl. Malaya 2 (1973) 258; Corner, Ways. Trees, 3rd ed. (1988) 391; Keng, Conc. Fl. Sing. (1990) 79; — *B. speciosa* Forst.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 756.

1238 **Barringtonia conoidea** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 757; Whitmore, Tree Fl. Malaya 2 (1973) 258; Corner, Ways. Trees, 3rd ed. (1988) 391; Keng, Conc. Fl. Sing. (1990) 79.

1239 **Barringtonia macrostachya** (Jack) Kurz; Ridley, Fl. Mal. Pen. 1 (1922) 758; Whitmore, Tree Fl. Malaya 2 (1973) 260; Corner, Ways. Trees, 3rd ed. (1988) 392; Keng, Conc. Fl. Sing. (1990) 79; — *B. cylindrostachya* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83.

1240 **Barringtonia racemosa** (L.) Spreng.; Ridley, Fl. Mal. Pen. 1 (1922) 757; Whitmore, Tree Fl. Malaya 2 (1973) 259; Corner, Ways. Trees, 3rd ed. (1988) 392; Keng, Conc. Fl. Sing. (1990) 80; — *B. inclyta* Miers; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83.

1241 **Barringtonia reticulata** (Bl.) Miq.; Whitmore, Tree Fl. Malaya 2 (1973) 260; Corner, Ways. Trees, 3rd ed. (1988) 392; Keng, Conc. Fl. Sing. (1990) 80; — *B. sumatrana* Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 758; Corner, Ways. Trees 1st ed. (1940) 356.

1242 **Planchonia grandis** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 760; Whitmore, Tree Fl. Malaya 2 (1973) 264; Keng, Conc. Fl. Sing. (1990) 80; — *Careya n. sp.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83.

LEEACEAE

1243 **Leea aequata** L.; Ridley, Fl. Mal. Pen. 1 (1922) 486; Ridsdale, Fl. Males. I 7^4 (1976) 775; Latiff, Corner, Ways. Trees, 3rd ed. (1988) 757; Tree Fl. Malaya 4 (1989) 481; — *L. robusta* (*non* Roxb.) Ridl. Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65, Ridley, Fl. Mal. Pen. 1 (1922) 486.

1244 **Leea angulata** Korth. *ex* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 485; Corner, Ways. Trees 1st ed. (1940) 97; Ridsdale, Fl. Males. I 7^4 (1976) 772; Corner, Ways. Trees, 3rd ed. (1988) 757; Latiff, Tree Fl. Malaya 4 (1989) 481, Keng, Conc. Fl. Sing. (1990) 118.

1245 **Leea indica** (Burm. *f.*) Merr.; Corner, Ways. Trees 1st ed. (1940) 97; Ridsdale, Fl. Males. I 7^4 (1976) 779; Corner, Ways. Trees, 3rd ed. (1988) 758; Latiff, Tree Fl. Malaya 4 (1989) 482; Keng, Conc. Fl. Sing. (1990) 118; — *L. sambucina* Willd.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65 (incl. *var. biserrata*); Ridley, Fl. Mal. Pen. 1 (1922) 484; — *L. javanica* (*non* Bl.) King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 486.

1246 **Leea rubra** Bl. *ex* Spreng.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 485; Corner, Ways. Trees 1st ed. (1940) 97; Ridsdale, Fl. Males. I 7^4 (1976) 776; Corner, Ways. Trees, 3rd ed. (1988) 758; Latiff, Tree Fl. Malaya 4 (1989) 482; Keng, Conc. Fl. Sing. (1990) 118.

LEGUMINOSAE

A 1247 **Abrus precatorius** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 558; Henderson, Mal. Wild Fl. Dic. (1959) 85; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 31.

A 1248 **Acacia auriculiformis** A. Cunn. *ex* Benth.; Corlett, J. Biogeog. (1988) 662; Corner, Ways. Trees, 3rd ed. (1988) 448; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 58.

1249 **Acacia concinna** (Willd.) A. DC.; Nielsen, Fl. Males. I 11^1 (1992) 48.

1250 **Acacia kekapur** I. Niels.; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 50; — *A. pseudointsia* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 657.

1251 **Adenanthera malayana** Kostermans; Nielsen, Fl. Males. I 11^1 (1992) 170; — *A. bicolor auctt., non* Moon; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 654; Whitmore, Tree Fl. Malaya 1 (1972) 276; Corner, Ways. Trees, 3rd ed. (1988) 450; Keng, Conc. Fl. Sing. (1990) 31.

A 1252 **Adenanthera pavonina** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 653; Whitmore, Tree Fl. Malaya 1 (1972) 276; Corner, Ways. Trees, 3rd ed. (1988) 450; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 173.

A 1253 **Aeschynomene americana** L.; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 130.

1254 **Aeschynomene indica** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 602; Henderson, Mal. Wild Fl. Dic. (1959) 82; Keng, Conc. Fl. Sing. (1990) 31.

1255 **Albizia pedicellata** Baker *ex* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 659; Whitmore, Tree Fl. Malaya 1 (1972) 279; Corner, Ways. Trees, 3rd ed. (1988) 453; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 78.

1256 **Albizia retusa** Benth.; Whitmore, Tree Fl. Malaya 1 (1972) 280; Corner, Ways. Trees, 3rd ed. (1988) 454; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 80; — *A. littoralis* T. & B.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 659.

1257 **Albizia splendens** Miq.; Keng, Conc. Fl. Sing. (1990) 31; Nielsen, Fl. Males. I 11^1 (1992) 83; — *Pithecellobium confertum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 661; — *Pithecellobium splendens* (Miq.) Corner; Whitmore, Tree Fl. Malaya 1 (1972) 287; Corner, Ways. Trees, 3rd ed. (1988) 465.

1258 **Alysicarpus vaginalis** (L.) DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73 (*incl. var. nummularifolius*); Ridley, Fl. Mal. Pen. 1 (1922) 604; Henderson, Mal. Wild Fl. Dic. (1959) 90; Keng, Conc. Fl. Sing. (1990) 31; — *A. nummularifolius* DC.; Ridley, Fl. Mal. Pen. 1 (1922) 604.

1259 **Archidendron clypearia** (Jack) I. Niels.; Nielsen, Fl. Thail. 4 (1985) 208; Nielsen, Fl. Males. I 11^1 (1992) 97; — *Pithecellobium clypearia* (Jack) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 64; Whitmore, Tree Fl. Malaya 1 (1972) 284; Corner, Ways. Trees, 3rd ed. (1988) 462; Keng, Conc. Fl. Sing. (1990) 37; — *Pithecellobium angulatum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 664; Corner, Ways. Trees, 3rd ed. (1988) 462.

1260 **Archidendron contortum** (Mart.) Niels.; Nielsen, Fl. Thail. 4 (1985) 211; Nielsen, Fl. Males. I 11^1 (1992) 100; — *Pithecellobium contortum* Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 664; Whitmore, Tree Fl. Malaya 1 (1972) 285; Corner, Ways. Trees, 3rd ed. (1988) 462; Keng, Conc. Fl. Sing. (1990) 37.

1261 **Archidendron ellipticum** (Bl.) Niels.; Nielsen, Fl. Thail. 4 (1984) 215; Nielsen, Fl. Males. I 11^1 (1992) 100; — *Pithecellobium ellipticum* (Bl.) Hassk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 662; Whitmore, Tree Fl. Malaya 1 (1972) 286; Corner, Ways. Trees, 3rd ed. (1988) 463; Keng, Conc. Fl. Sing. (1990) 38.

1262 **Archidendron globosum** (Bl.) Niels., Adansonia 19 (1979) 18; Nielsen, Fl. Males. I 11^1 (1992) 104; — *Pithecellobium affine* Baker *ex* Benth.; Ridley, Fl. Mal. Pen. 1 (1922) 662; Burkill, Dict. (1935) 1759; Corner, Ways. Trees 1st ed. (1940) 418; — *Pithecellobium globosum* (Bl.) Kosterm.; Whitmore, Tree Fl. Malaya 1 (1972) 286; Corner, Ways. Trees, 3rd ed. (1988) 464; Keng, Conc. Fl. Sing. (1990) 38.

1263 **Archidendron jiringa** (Jack) Niels.; Nielsen, Fl. Thail. 4 (1985) 218; Nielsen, Fl. Males. I 11^1 (1992) 106; — *Pithecellobium lobatum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 661; — *Pithecellobium jiringa* (Jack) Prain; Whitmore, Tree Fl. Malaya 1 (1972) 286; Corner, Ways. Trees, 3rd ed. (1988) 464; Keng, Conc. Fl. Sing. (1990) 38.

1264 **Archidendron microcarpum** (Benth.) Niels., Adansonia 19 (1979) 17; Nielsen, Fl. Males. I 11^1 (1992) 109; — *Pithecellobium microcarpum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 77; Ridley, Fl. Mal. Pen. 1 (1922) 663; Whitmore, Tree Fl. Malaya 1 (1972) 287; Corner, Ways. Trees, 3rd ed. (1988) 464; Keng, Conc. Fl. Sing. (1990) 38.

1265 **Bauhinia semibifida** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 627; Keng, Conc. Fl. Sing. (1990) 32.

1266 **Caesalpinia bonduc** Roxb. *emend.* Dandy & Exell; Ridley, Fl. Mal. Pen. 1 (1922) 649; Hattink, Reinwardtia 9 (1974) 17; Keng, Conc. Fl. Sing. (1990) 32.

1267 **Caesalpinia crista** L.; Sinclair, Gard. Bull. Sing. 14 (1953) 32; Hattink, Reinwardtia 9 (1974) 20; Keng, Conc. Fl. Sing. (1990) 32; — *C. nuga* Ait.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 650.

1268 **Caesalpinia sumatrana** Roxb.; Hattink, Reinwardtia 9 (1974) 56; — *Mezoneuron sumatranum* (Roxb.) W. & A. *ex* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 647; Keng, Conc. Fl. Sing. (1990) 36.

1269 **Caesalpinia tortuosa** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 651; Hattink, Reinwardtia 9 (1974) 57; — ?*C. globulorum non* Bakh. *f.* & van Royen; Keng, Conc. Fl. Sing. (1990) 32.

A 1270 **Calopogonium mucunoides** Desv.; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 32.

1271 **Canavalia cathartica** Thou.; Keng, Conc. Fl. Sing. (1990) 33; — *C. obtusifolia* (*non* DC.) Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; — *C. turgida* Grah. *ex* A. Gray; Ridley, Fl. Mal. Pen. 1 (1922) 573; — *C. microcarpa* (DC.) Piper; Henderson, Mal. Wild Fl. Dic. (1959) 89.

1272 **Canavalia maritima** (Aubl.) Thou.; Keng, Conc. Fl. Sing. (1990) 33; — *C. lineata* (*non* DC.) Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; — *C. obtusifolia* (Lam.) DC.; Ridley, Fl. Mal. Pen. 1 (1922) 572; — *C. rosea* (Sw.) DC.; Henderson, Mal. Wild Fl. Dic. (1959) 88; Rudd, Rev. Handb. Fl. Ceyl. 7 (1991) 274.

Debate rages over whether *maritima* or *rosea* is the correct epithet for this taxon.

1273 **Centrosema plumieri** (Turp. *ex* Pers.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 615; Keng, Conc. Fl. Sing. (1990) 33.

A 1274 **Centrosema pubescens** Benth.; Corlett, J. Biogeog. (1988) 662.

A 1275 **Chamaecrista nictinans** (L.) Moench; Lock, Legumes of Africa (1989) 32; — *Cassia lechenaultiana* DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 619; — *Cassia aeschinomene* DC. *ex* Collad.; Rudd, Rev. Handb. Fl. Ceyl. 7 (1991) 88.

A 1276 **Chamaecrista mimosoides** (L.) Greene; Lock, Legumes of Africa (1989) 32; — *Cassia mimosoides* L.; Ridley, Fl. Mal. Pen. 1 (1922) 619; Henderson, Mal. Wild Fl. Dic. (1959) 97; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33.

A 1277 **Clitoria laurifolia** Poir.; Henderson, Mal. Wild Fl. Dic. (1959) 72; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33; — *C. cajanaefolia* (Presl) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 569.

A 1278 **Clitoria ternatea** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 569; Henderson, Mal. Wild Fl. Dic. (1959) 73; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33.

A 1279 **Crotalaria bialata** Schrank; Keng, Conc. Fl. Sing. (1990) 33; — *C. alata* Buch.-Ham. *ex* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 560; Henderson, Mal. Wild Fl. Dic. (1959) 67.

A 1280 **Crotalaria incana** L.; Ridley, Fl. Mal. Pen. 1 (1922) 562; Sinclair, Gard. Bull. Sing. 14 (1953) 31; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 34.

1281 **Crotalaria juncea** L.; Keng, Conc. Fl. Sing. (1990) 34.

A 1282 **Crotalaria pallida** Ait.; Polhill, *Crotalaria* in Africa & Madagascar (1982) 184; — *C. saltiana* (*non* Andr.) Prain *ex* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 562; — *C. mucronata* Desv.; Keng, Conc. Fl. Sing. (1990) 34.

1283 **Crotalaria quinquefolia** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 563; Henderson, Mal. Wild Fl. Dic. (1959) 72; Keng, Conc. Fl. Sing. (1990) 34.

1284 **Crotalaria retusa** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 561; Henderson, Mal. Wild Fl. Dic. (1959) 68; Keng, Conc. Fl. Sing. (1990) 34.

1285 **Cynometra ramiflora** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 635; Burkill, Dict. (1935) 731; Whitmore, Tree Fl. Malaya 1 (1972) 254; Corner, Ways. Trees, 3rd ed. (1988) 434; Keng, Conc. Fl. Sing. (1990) 34.

1286 **Dalbergia candenatensis** (Dennst.) Prain; Keng, Conc. Fl. Sing. (1990) 34; — *D. torta* Grah.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 591.

1287 **Dalbergia hullettii** Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 590; Keng, Conc. Fl. Sing. (1990) 34.

1288 **Dalbergia junghuhnii** Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72 (*incl. var. scortechinii*); Keng, Conc. Fl. Sing. (1990) 34; — *D. scortechinii* Benth.; Ridley, Fl. Mal. Pen. 1 (1922) 589; — *D. stercoracea* Maing.; Ridley, Fl. Mal. Pen. 1 (1922) 589.

1289 **Dalbergia parviflora** Roxb.; Ridley, Fl. Mal. Pen. 1 (1922) 589; Keng, Conc. Fl. Sing. (1990) 34.

1290 **Dalbergia rostrata** Hassk.; Ridley, Fl. Mal. Pen. 1 (1922) 590; Keng, Conc. Fl. Sing. (1990) 34; — *D. pseudosissoo* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73.

1291 **Dalbergia velutina** Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 592; Keng, Conc. Fl. Sing. (1990) 34.

1292 **Derris amoena** Benth. *var.* **maingayana** (Baker) Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 597; Maxwell, Gard. Bull. Sing. 36 (1983) 231; Keng, Conc. Fl. Sing. (1990) 34.

1293 **Derris heptaphylla** (L.) Merr.; Keng, Conc. Fl. Sing. (1990) 34; — *D. sinuata* Benth. *ex* Thw.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 594; — *Aganope heptaphylla* (L.) Polhill, Kew Bull. 25 (1971) 268.

1294 **Derris scandens** (Roxb.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 595; Keng, Conc. Fl. Sing. (1990) 34.

1295 **Derris thyrsiflora** (Benth.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 594; Keng, Conc. Fl. Sing. (1990) 34; — *Aganope thyrsiflora* (Benth.) Polhill, Kew Bulletin 25 (1971) 268.

1296 **Derris trifoliata** Lour.; Keng, Conc. Fl. Sing. (1990) 34; — *D. uliginosa* (Roxb. *ex* Willd.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 595.

A 1297 **Desmanthus virgatus** (L.) Willd.; Nielsen, Fl. Males. I 11[1] (1992) 213; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 130.

A 1298 **Desmodium caudatum** (Thunb.) DC.; Knaap-van Meeuwen, Reinwardtia 6 (1962) 248; Ohashi, Ginkgoana 1 (1973) 91; — *D. laburnifolium* (Poir.) DC.; Ridley, Fl. Mal. Pen. 1 (1922) 608; Sinclair, Gard. Bull. Sing. 15 (1956) 23; Corlett, J. Biogeog. (1988) 662.

1299 **Desmodium heterocarpon** (L.) DC.; Henderson, Mal. Wild Fl. Dic. (1959) 80; Keng, Conc. Fl. Sing. (1990) 35; — *D. polycarpum* (Poir.) DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73 (*incl. var. ovalifolia*); Ridley, Fl. Mal. Pen. 1 (1922) 609; — *D. ovalifolium* Wall.; Ridley, Fl. Mal. Pen. 1 (1922) 610; Henderson, Mal. Wild Fl. Dic. (1959) 76.

1300 **Desmodium heterophyllum** (WILLD.) DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 73; RIDLEY, Fl. Mal. Pen. 1 (1922) 606; HENDERSON, Mal. Wild Fl. Dic. (1959) 75; KENG, Conc. Fl. Sing. (1990) 35.

1301 **Desmodium triflorum** (L.) DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 73; RIDLEY, Fl. Mal. Pen. 1 (1922) 606; HENDERSON, Mal. Wild Fl. Dic. (1959) 74; KENG, Conc. Fl. Sing. (1990) 35.

1302 **Desmodium umbellatum** (L.) DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 73; RIDLEY, Fl. Mal. Pen. 1 (1922) 607; CORNER, Ways. Trees, 3rd ed. (1988) 406; KENG, Conc. Fl. Sing. (1990) 35; — *Dendrolobium umbellatum* (L.) BENTH.; OHASHI, Ginkgoana 1 (1973) 82.

1303 **Dialium indum** L.; RIDLEY, Fl. Mal. Pen. 1 (1922) 622; WHITMORE, Tree Fl. Malaya 1 (1972) 259; — *D. laurinum* BAKER; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 74; RIDLEY, Fl. Mal. Pen. 1 (1922) 622; WHITMORE, Tree Fl. Malaya 1 (1972) 260; KENG, Conc. Fl. Sing. (1990) 35.

1304 **Dialium maingayi** BAKER; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 74; RIDLEY, Fl. Mal. Pen. 1 (1922) 622; WHITMORE, Tree Fl. Malaya 1 (1972) 260; KENG, Conc. Fl. Sing. (1990) 35.

1305 **Dialium patens** BAKER; WHITMORE, Tree Fl. Malaya 1 (1972) 260.

1306 **Dialium platysepalum** BAKER; RIDLEY, Fl. Mal. Pen. 1 (1922) 623; WHITMORE, Tree Fl. Malaya 1 (1972) 261; — *D. wallichii* PRAIN; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 74; RIDLEY, Fl. Mal. Pen. 1 (1922) 623; WHITMORE, Tree Fl. Malaya 1 (1972) 261; KENG, Conc. Fl. Sing. (1990) 35.

1307 **Dioclea hexandra** (RALPH) MABBERLEY *var.* **javanica** (BENTH.) DEN HENGST; — *Dioclea reflexa* HOOK.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 35 (1901) 87; RIDLEY, Fl. Mal. Pen. 1 (1922) 571.

1308 **Entada spiralis** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 75; RIDLEY, Fl. Mal. Pen. 1 (1922) 655; KENG, Conc. Fl. Sing. (1990) 35; NIELSEN, Fl. Males. I 11^1 (1992) 180.

1309 **Flemingia strobilifera** (L.) AIT.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 70; RIDLEY, Fl. Mal. Pen. 1 (1922) 565; HENDERSON, Mal. Wild Fl. Dic. (1959) 63; — *Moghania strobilifera* (L.) ST. HIL. *ex* JACKSON; KENG, Conc. Fl. Sing. (1990) 36.

A 1310 **Indigofera hirsuta** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 71; RIDLEY, Fl. Mal. Pen. 1 (1922) 580; HENDERSON, Mal. Wild Fl. Dic. (1959) 84; KENG, Conc. Fl. Sing. (1990) 35.

1311 **Indigofera spicata** FORSK.; DE KORT & THIJSSE, Blumea 30 (1984) 132.

A 1312 **Indigofera suffruticosa** MILL.; SINCLAIR, Gard. Bull. Sing. 14 (1953) 32; CORLETT, J. Biogeog. (1988) 662; KENG, Conc. Fl. Sing. (1990) 35.

A 1313 **Indigofera tinctoria** L.; RIDLEY, Fl. Mal. Pen. 1 (1922) 581; BURKILL, Dict. (1935) 1259; KENG, Conc. Fl. Sing. (1990) 36.

1314 **Indigofera zollingeriana** MIQ.; DE KORT & THIJSSE, Blumea 30 (1984) 132.

1315 **Intsia bijuga** (Colebr.) O. Ktze.; Whitmore, Tree Fl. Malaya 1 (1972) 262; Corner, Ways. Trees, 3rd ed. (1988) 438; Keng, Conc. Fl. Sing. (1990) 36; — *Afzelia retusa* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 639; — *Afzelia bijuga* A. Gray; Ridley, Fl. Mal. Pen. 1 (1922) 639.

1316 **Koompassia malaccensis** Maing. *ex* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 620; Whitmore, Tree Fl. Malaya 1 (1972) 265; Corner, Ways. Trees, 3rd ed. (1988) 439; Keng, Conc. Fl. Sing. (1990) 36.

1317 **Kunstleria ridleyi** Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 600; Keng, Conc. Fl. Sing. (1990) 36.

A 1318 **Leucaena leucocephala** (Lmk.) De Wit; Corner, Ways. Trees, 3rd ed. (1988) 456; Keng, Conc. Fl. Sing. (1990) 36; Nielsen, Fl. Males. I 11^1 (1992) 182; — *L. glauca* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 655.

A 1319 **Millettia atropurpurea** (Wall.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Whitmore, Tree Fl. Malaya 1 (1972) 296; Corner, Ways. Trees, 3rd ed. (1988) 413; Keng, Conc. Fl. Sing. (1990) 36; — *Adinobotrys atropurpureus* (Wall.) Dunn; Ridley, Fl. Mal. Pen. 1 (1922) 587; — *Whitfordiodendron pubescens* (Craib) Burkill; Burkill, Dict. (1935) 2256.

1320 **Millettia eriantha** Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; Keng, Conc. Fl. Sing. (1990) 36; — *Adinobotrys erianthus* (Benth.) Dunn; Ridley, Fl. Mal. Pen. 1 (1922) 586.

1321 **Millettia maingayi** Baker; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Keng, Conc. Fl. Sing. (1990) 36; — *Padebruggea maingayi* (Baker) Dunn; Ridley, Fl. Mal. Pen. 1 (1922) 587.

A 1322 **Mimosa bimucronata** (DC.) O. Kuntze; Nielsen, Fl. Males. I 11^1 (1992) 184; — *M. sepiaria* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 656; Henderson, Mal. Wild Fl. Dic. (1959) 103; Keng, Conc. Fl. Sing. (1990) 36.

A 1323 **Mimosa diplotricha** C. Wright *ex* Sauvalle; Nielsen, Fl. Males. I 11^1 (1992) 184; — *M. invisa auct., non* Mart. *ex* Colla; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 36.

A 1324 **Mimosa pigra** L.; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 36; Nielsen, Fl. Males. I 11^1 (1992) 185.

A 1325 **Mimosa pudica** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 656; Henderson, Mal. Wild Fl. Dic. (1959) 102; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 36; Nielsen, Fl. Males. I 11^1 (1992) 185.

1326 **Mucuna gigantea** (Willd.) DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; Ridley, Fl. Mal. Pen. 1 (1922) 577; Keng, Conc. Fl. Sing. (1990) 37.

A 1327 **Neptunia oleracea** Lour.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 653; Henderson, Mal. Wild Fl. Dic. (1959) 101; Corlett, J. Biogeog. (1988) 662; Nielsen, Fl. Males. I 11^1 (1992) 189; — *N. natans* (L. *f.*) Druce; Keng, Conc. Fl. Sing. (1990) 37.; —

A 1328 **Neptunia plena** (L.) Benth.; Maxwell, Gard. Bull. Sing. 36 (1983) 231; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 37; Nielsen, Fl. Males. I 11^1 (1992) 214.

1329 **Ormocarpum cochinchinense** (Lour.) Merr.; Rudd, Rev. Handb. Fl. Ceyl. 7 (1991) 169; — *O. glabrum* Teysm. & Binn.; Sinclair, Gard. Bull. Sing. 14 (1953) 32.

1330 **Ormosia bancana** (Miq.) Merr.; Whitmore, Tree Fl. Malaya 1 (1972) 300; Corner, Ways. Trees, 3rd ed. (1988) 414; Keng, Conc. Fl. Sing. (1990) 37; — *O. parvifolia* Baker; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 614.

1331 **Ormosia macrodisca** Bak.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 613; Whitmore, Tree Fl. Malaya 1 (1972) 301; Keng, Conc. Fl. Sing. (1990) 37.

1332 **Ormosia sumatrana** (Miq.) Prain; Ridley, Fl. Mal. Pen. 1 (1922) 614; Whitmore, Tree Fl. Malaya 1 (1972) 301; Keng, Conc. Fl. Sing. (1990) 37; — *O. microsperma* Baker; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 614.

A 1333 **Paraserianthes falcataria** (L.) I. Nielsen; Nielsen, Fl. Males. I 11^1 (1992) 151; — *A. moluccana* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 76; Ridley, Fl. Mal. Pen. 1 (1922) 659; — *A. falcata* (L.) Backer; Whitmore, Tree Fl. Malaya 1 (1972) 277; — *A. falcataria* (L.) Fosberg; Corlett, J. Biogeog. (1988) 662; Corner, Ways. Trees, 3rd ed. (1988) 452; Keng, Conc. Fl. Sing. (1990) 31.

1334 **Parkia speciosa** Hassk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 652; Whitmore, Tree Fl. Malaya 1 (1972) 281; Corner, Ways. Trees, 3rd ed. (1988) 458; Keng, Conc. Fl. Sing. (1990) 37; Fortune-Hopkins, Fl. Males. I 11^1 (1992) 198.

1335 **Peltophorum pterocarpum** (DC.) Backer *ex* Heyne; Whitmore, Tree Fl. Malaya 1 (1972) 268; Corner, Ways. Trees, 3rd ed. (1988) 440; Keng, Conc. Fl. Sing. (1990) 37; — *P. ferrugineum* (Decne.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 646.

1336 **Pongamia pinnata** (L.) Pierre; Whitmore, Tree Fl. Malaya 1 (1972) 303; Corner, Ways. Trees, 3rd ed. (1988) 415; Keng, Conc. Fl. Sing. (1990) 38; — *P. glabra* Vent.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 72; Ridley, Fl. Mal. Pen. 1 (1922) 593.

A 1337 **Pseudarthria viscida** (L.) W. & A.; Sinclair, Gard. Bull. Sing. 14 (1953) 32; Corlett, J. Biogeog. (1988) 662.

A 1338 **Pueraria phaseoloides** (Roxb.) Benth.; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 38.

A 1339 **Senna alata** (L.) Roxb.; Lock, Legumes of Africa (1989) 36; — *Cassia alata* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 619; Henderson, Mal. Wild Fl. Dic. (1959) 98; Corlett, J. Biogeog. (1988) 662; Corner, Ways. Trees, 3rd ed. (1988) 429; Keng, Conc. Fl. Sing. (1990) 33.

A 1340 **Senna hirsuta** (L.) Irwin & Barneby; Lock, Legumes of Africa (1989) 37; — *Cassia hirsuta* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 618; Henderson, Mal. Wild Fl. Dic. (1959) 96; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33.

A 1341 **Senna obtusifolia** (L.) T. & B.; Lock, Legumes of Africa (1989) 38; — *Cassia obtusifolia* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 618; Keng, Conc. Fl. Sing. (1990) 33.

A 1342 **Senna occidentalis** (L.) Link; Lock, Legumes of Africa (1989) 38; — *Cassia occidentalis* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 74; Ridley, Fl. Mal. Pen. 1 (1922) 618; Henderson, Mal. Wild Fl. Dic. (1959) 99; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33.

A 1343 **Senna tora** (L.) Roxb.; Lock, Legumes of Africa (1989) 40; — *Cassia tora* L.; Ridley, Fl. Mal. Pen. 1 (1922) 618; Henderson, Mal. Wild Fl. Dic. (1959) 99; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 33.

1344 **Serianthes grandiflora** Benth.; Ridley, Fl. Mal. Pen. 1 (1922) 657; Sinclair, Gard. Bull. Sing. 14 (1953) 39; Nielsen, Fl. Thail. 4 (1985) 220; Nielsen, Fl. Males. I 11^1 (1992) 160; — *S. dilmyi* Fosberg; Whitmore, Tree Fl. Malaya 1 (1972) 289; Keng, Conc. Fl. Sing. (1990) 38.

A 1345 **Sesbania cannabina** (Retz.) Poiret; Burbridge, Aust. J. Bot. 13 (1965) 118.

1346 **Sindora wallichii** Grah. *ex* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 637; Whitmore, Tree Fl. Malaya 1 (1972) 273; Keng, Conc. Fl. Sing. (1990) 39; — *S. intermedia* (Baker) Prain; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 75; Ridley, Fl. Mal. Pen. 1 (1922) 638.

1347 **Spatholobus ferrugineus** (Zoll. & Mor.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; Ridley, Fl. Mal. Pen. 1 (1922) 574; Ridder-Numan & Wiriadinata, Reinwardtia 10 (1985) 170; Keng, Conc. Fl. Sing. (1990) 39.

1348 **Spatholobus maingayi** Prain *ex* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; Ridley, Fl. Mal. Pen. 1 (1922) 575; Ridder-Numan & Wiriadinata, Reinwardtia 10 (1985) 180; Keng, Conc. Fl. Sing. (1990) 39.

1349 **Spatholobus ridleyi** Prain *ex* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; Ridley, Fl. Mal. Pen. 1 (1922) 575; Ridder-Numan & Wiriadinata, Reinwardtia 10 (1985) 194; Keng, Conc. Fl. Sing. (1990) 39.

A 1350 **Stylosanthes guianensis** (Aubl.) Sw.; Corlett, J. Biogeog. (1988) 662.

1351 **Stylosanthes humilis** H.B.K.; Rudd, Rev. Handb. Fl. Ceyl. 7 (1991) 180; — *S. sundaica* Taub.; Keng, Conc. Fl. Sing. (1990) 39.

A 1352 **Tephrosia noctiflora** Bojer *ex* Baker; Burkill, Dict. (1935) 2132; Bosman & de Haas, Blumea 28 (1983) 458; Corlett, J. Biogeog. (1988) 662; — *T. hookeriana* W. & A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 71; — *T. subamoena* Prain; Ridley, Fl. Mal. Pen. 1 (1922) 581.

A 1353 **Uraria crinita** (L.) Desv. *ex* DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 602; Henderson, Mal. Wild Fl. Dic. (1959) 65; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 39.

1354 **Vigna marina** (Burm.) Merr.; Henderson, Mal. Wild Fl. Dic. (1959) 87; Keng, Conc. Fl. Sing. (1990) 39; — *V. retusa* (E. Meyer) Walp.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 70; Ridley, Fl. Mal. Pen. 1 (1922) 568.

A 1355 **Vigna unguiculata** (L.) Walp.; Corlett, J. Biogeog. 19 (1992) 427.

A 1356 **Zornia diphylla** (L.) Pers.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 73; Ridley, Fl. Mal. Pen. 1 (1922) 601; Henderson, Mal. Wild Fl. Dic. (1959) 91; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 39.

LEMNACEAE

1357 **Lemna perpusilla** Torrey; van der Plas, Fl. Males. I 7^1 (1971) 230; — *L. paucicostata* Hegelm.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 179, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 52; Ridley, Fl. Mal. Pen. 5 (1925) 132; Henderson, Mal. Wild Fl. Monoc. (1954) 210.

1358 **Lemna tenera** Kurz; Ridley, Fl. Mal. Pen. 5 (1925) 132; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 52; van der Plas, Fl. Males. I 7^1 (1971) 235; — *L. sp.* near *L. trisulca* Ridley, J. Str. Br. R. As. Soc. 33 (1900) 179.

1359 **Spirodela polyrhiza** (L.) Schleid.; van der Plas, Fl. Males. I 7^1 (1971) 224; — *L. polyrhiza* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 179, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 53; Ridley, Fl. Mal. Pen. 5 (1925) 132.

1360 **Wolffia globosa** (Roxb.) Hartog & Plas; van der Plas, Fl. Males. I 7^1 (1971) 236; — *W. arrhiza* (*non* Wimmer) Martens; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 179, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907) 53; Ridley, Fl. Mal. Pen. 5 (1925) 132; Henderson, Mal. Wild Fl. Monoc. (1954) 210.

LENTIBULARIACEAE

1361 **Utricularia aurea** Lour.; Taylor, Fl. Males. I 8^2 (1977) 296; — *U. flexuosa* Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 119; Ridley, Fl. Mal. Pen. 2 (1923) 491; Henderson, Mal. Wild Fl. Dic. (1959) 336.

1362 **Utricularia bifida** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 119; Ridley, Fl. Mal. Pen. 2 (1923) 492; Henderson, Mal. Wild Fl. Dic. (1959) 337; Taylor, Fl. Males. I 8^2 (1977) 281; Keng, Conc. Fl. Sing. (1990) 181.

1363 **Utricularia caerulea** L.; Taylor, Fl. Males. I 8^2 (1977) 287; Keng, Conc. Fl. Sing. (1990) 181; — *U. racemosa* Wall. *ex* Walp.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 119; — *U. albina* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 493; — *U. ophirensis* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 495.

1364 **Utricularia gibba** L.; Taylor, The Genus *Utricularia* (1989) 572; — *U. exoleta* R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 119; Ridley, Fl. Mal. Pen. 2 (1923) 491; Taylor, Fl. Males. I 8^2 (1977) 294; Keng, Conc. Fl. Sing. (1990) 181.

1365 **Utricularia punctata** Wall. *ex* A. DC.; Taylor, Fl. Males. I 8^2 (1977) 293; Keng, Conc. Fl. Sing. (1990) 181; — *U. fluitans* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 491.

1366 **Utricularia uliginosa** Vahl; Taylor, Fl. Males. I 8^2 (1977) 282; Keng, Conc. Fl. Sing. (1990) 181; — *U. affinis var. griffithii* (Wight) Oliv.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 119; — *U. griffithii* Wight; Ridley, Fl. Mal. Pen. 2 (1923) 492.

LILIACEAE

1367 **Dianella ensifolia** (L.) DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 168; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 92; Ridley, Fl. Mal. Pen. 4 (1924) 329; Henderson, Mal. Wild Fl. Monoc. (1954) 186; Jessop, Fl. Males. I 9^1 (1979) 207; Keng, Gard. Bull. Sing. 40 (1987) 116.

1368 **Peliosanthes teta** Andr. *ssp.* **humilis** (Andr.) Jessop; Jessop, Fl. Males. I 9^1 (1979) 229; Keng, Gard. Bull. Sing. 40 (1987) 117; — *P. violacea* Wall. *ex* Baker, Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Mat. Fl. Mal. Pen 2 89; Ridley, Fl. Mal. Pen. 4 (1924) 324; Henderson, Mal. Wild Fl. Monoc. (1954) 184; — *P. viridis* Ridl., Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Mat. Fl. Mal. Pen 2 89; Ridley, Fl. Mal. Pen. 4 (1924) 325; Henderson, Mal. Wild Fl. Monoc. (1954) 184;

LINACEAE

1369 **Indorouchera griffithiana** (Planch.) Hallier *f.*; Cockburn, Tree Fl. Malaya 1 (1972) 306; van Hooren & Nooteboom, Fl. Males. I 10^3 (1988) 617; Keng, Conc. Fl. Sing. (1990) 93; — *Roucheria griffithiana* Planch.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 323.

LOGANIACEAE

1370 **Fagraea acuminatissima** Merr.; Leenhouts, Fl. Males. I 6^2 (1962) 319; Kochummen, Tree Fl. Malaya 2 (1973) 271; — *F. obovata* (*non* Wall.) King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 114; Ridley, Fl. Mal. Pen. 2 (1923) 418.

1371 **Fagraea auriculata** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 114; Ridley, Fl. Mal. Pen. 2 (1923) 416; Burkill, Dict. (1935) 993; Sinclair, Gard. Bull. Sing. 14 (1953) 39; Leenhouts, Fl. Males. I 6^2 (1962) 326; Kochummen, Tree Fl. Malaya 2 (1973) 270; Keng, Conc. Fl. Sing. (1990) 140.

1372 **Fagraea fragrans** ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114; CORNER, Ways. Trees 1st ed. (1940) 424; LEENHOUTS, Fl. Males. I 6^2 (1962) 304 (*in part*); KOCHUMMEN, Tree Fl. Malaya 2 (1973) 273; CORNER, Ways. Trees, 3rd ed. (1988) 468; KENG, Conc. Fl. Sing. (1990) 140 (*in part*); — *Cyrtophyllum peregrinum* REINW.; RIDLEY, Fl. Mal. Pen. 2 (1923) 421.

1373 **Fagraea gigantea** RIDL.; CORNER, Ways. Trees 1st ed. (1940) 425; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 273; CORNER, Ways. Trees, 3rd ed. (1988) 469; — *F. speciosa* (*non* BL.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114; — *Cyrtophyllum giganteum* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 421; — *F. fragrans* ROXB.; LEENHOUTS, Fl. Males. I 6^2 (1962) 304 (*in part*); KENG, Conc. Fl. Sing. (1990) 140 (*in part*).

1374 **Fagraea racemosa** JACK *ex* WALL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114; RIDLEY, Fl. Mal. Pen. 2 (1923) 418; BURKILL, Dict. (1935) 996; CORNER, Ways. Trees 1st ed. (1940) 425; LEENHOUTS, Fl. Males. I 6^2 (1962) 311; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 270; CORNER, Ways. Trees, 3rd ed. (1988) 469; KENG, Conc. Fl. Sing. (1990) 140; — *F. ligustrina* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114; RIDLEY, Fl. Mal. Pen. 2 (1923) 420; — *F. morindaefolia* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114.

1375 **Fagraea ridleyi** KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 417; LEENHOUTS, Fl. Males. I 6^2 (1962) 320; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 271; KENG, Conc. Fl. Sing. (1990) 140; — *F. carnosa* (*non* JACK) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114.

1376 **Norrisia maior** SOLERED.; LEENHOUTS, Fl. Males. I 6^2 (1962) 341; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 274; KENG, Conc. Fl. Sing. (1990) 141; — *N. malaccensis* (*non* GARDN.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 114; BURKILL, Dict. (1935) 1561; — *N. malaccensis* GARDN. *var. major* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 414.

1377 **Strychnos axillaris** COLEBR.; LEENHOUTS, Fl. Males. I 6^2 (1962) 358; KENG, Conc. Fl. Sing. (1990) 141; — *S. malaccensis* BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 115; RIDLEY, Fl. Mal. Pen. 2 (1923) 425; — *S. pubescens* CLARKE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 115; RIDLEY, Fl. Mal. Pen. 2 (1923) 424; BURKILL, Dict. (1935) 2098.

1378 **Strychnos ignatii** BERG; BURKILL, Dict. (1935) 2095; LEENHOUTS, Fl. Males. I 6^2 (1962) 347; KENG, Conc. Fl. Sing. (1990) 141; — *S. tieute* LESCH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 115; — *S. ovalifolia* WALL. *ex* G. DON; RIDLEY, Fl. Mal. Pen. 2 (1923) 425; BURKILL, Dict. (1935) 2097.

1379 **Strychnos maingayi** CLARKE; RIDLEY, Fl. Mal. Pen. 2 (1923) 423; LEENHOUTS, Fl. Males. I 6^2 (1962) 350; KENG, Conc. Fl. Sing. (1990) 141.

1380 **Strychnos ridleyi** KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 424; LEENHOUTS, Fl. Males. I 6^2 (1962) 360; KENG, Conc. Fl. Sing. (1990) 141.

LORANTHACEAE

1381 **Amylotheca duthieana** (KING) DANSER; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 244; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus duthieanus* KING; RIDLEY, Fl. Mal. Pen. 3 (1924) 156.

1382 **Barathranthus axsanthus** (KORTH.) MIQ.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 393; — *Loranthus lobbii* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; RIDLEY, Fl. Mal. Pen. 3 (1924) 153; HENDERSON, Mal. Wild Fl. Dic. (1959) 451.

1383 **Dendrophthoe falcata** (L. *f.*) ETTINGSH.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 403; — *Loranthus longiflora* DESR.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134.

1384 **Dendrophthoe pentandra** (L.) MIQ.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 417; KENG, Conc. Fl. Sing. (1990) 129; *Loranthus crassus* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; RIDLEY, Fl. Mal. Pen. 3 (1924) 155; — *Loranthus pentandrus* L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; RIDLEY, Fl. Mal. Pen. 3 (1924) 155; HENDERSON, Mal. Wild Fl. Dic. (1959) 454.

1385 **Elytranthe albida** (BL.) BL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 158; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 305; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus albidus* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134.

1386 **Elytranthe arnottiana** (KORTH.) MIQ.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 307; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus maingayi* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; — *Elytranthe maingayi* (HOOK. *f.*) TIEGH.; RIDLEY, Fl. Mal. Pen. 3 (1924) 158.

1387 **Helixanthera coccinea** (JACK) DANSER; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 374; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus coccineus* JACK; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; RIDLEY, Fl. Mal. Pen. 3 (1924) 152; HENDERSON, Mal. Wild Fl. Dic. (1959) 452.

1388 **Helixanthera parasitica** LOUR.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 381; — *Loranthus pentapetalus* ROXB.; RIDLEY, Fl. Mal. Pen. 3 (1924) 152; HENDERSON, Mal. Wild Fl. Dic. (1959) 452.

1389 **Macrosolen cochinchinensis** (LOUR.) TIEGH.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 279; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus ampullaceus* ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; — *Elytranthe globosa* (ROXB.) G. DON; RIDLEY, Fl. Mal. Pen. 3 (1924) 161; — *Loranthus globosus* ROXB.; HENDERSON, Mal. Wild Fl. Dic. (1959) 453.

1390 **Macrosolen papillosus** (GAMBLE) DANSER; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 293; — *Elytranthe papillosa* GAMBLE; RIDLEY, Fl. Mal. Pen. 3 (1924) 160.

1391 **Macrosolen retusus** (JACK) MIQ.; DANSER, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 296; KENG, Conc. Fl. Sing. (1990) 129; — *Loranthus retusus* JACK; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 134; — *Elytranthe retusa* (JACK) G. DON; RIDLEY, Fl. Mal. Pen. 3 (1924) 160.

1392 **Scurrula ferruginea** (Jack) Danser; Danser, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 432; Keng, Conc. Fl. Sing. (1990) 129; — *Loranthus ferrugineus* Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; Ridley, Fl. Mal. Pen. 3 (1924) 153; Henderson, Mal. Wild Fl. Dic. (1959) 449.

1393 **Scurrula parasitica** L.; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 130.

1394 **Viscum articulatum** Burm. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; Ridley, Fl. Mal. Pen. 3 (1924) 165; Danser, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 460; Henderson, Mal. Wild Fl. Dic. (1959) 455; Keng, Conc. Fl. Sing. (1990) 130; — *V. flexuosum* Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 165.

1395 **Viscum ovalifolium** Wall. *ex* DC.; Keng, Conc. Fl. Sing. (1990) 130; — *V. orientale* (*non* Willd.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 134; Ridley, Fl. Mal. Pen. 3 (1924) 164; Danser, Bull. Jard. Bot. Buitenzorg Sér. III 11 (1931) 466; Henderson, Mal. Wild Fl. Dic. (1959) 455.

LYTHRACEAE

A 1396 **Ammania baccifera** L.; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 131.

1397 **Pemphis acidula** J.R. & G. Forst.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; Ridley, Fl. Mal. Pen. 1 (1922) 821; Henderson, Mal. Wild Fl. Dic. (1959) 146; Everett & Whitmore, Tree Fl. Malaya 2 (1973) 276; Corner, Ways. Trees, 3rd ed. (1988) 475; Keng, Conc. Fl. Sing. (1990) 83.

MAGNOLIACEAE

1398 **Magnolia candolii** (Bl.) H. Keng *var.* **singapurensis** (Ridl.) Noot.; Nooteboom, Fl. Males. I 10^3 (1988) 586; — *Talauma lanigera* (*non* Hook. *f.* & Thoms.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 38; — *Talauma singapurensis* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 16; Keng, Tree Fl. Malaya 2 (1973) 293; Keng, Conc. Fl. Sing. (1990) 9.

1399 **Magnolia elegans** (Bl.) H. Keng; Nooteboom, Fl. Males. I 10^3 (1988) 573; — *Aromadendron elegans* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 38 (*also called Talauma elegans* (Bl.) Miq.); Ridley, Fl. Mal. Pen. 1 (1922) 17; Burkill, Dict. (1935) 241; Keng, Tree Fl. Malaya 2 (1973) 283; Keng, Conc. Fl. Sing. (1990) 8.

1400 **Magnolia maingayi** King; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84; Ridley, Fl. Mal. Pen. 1 (1922) 13; Burkill, Dict. (1935) 1393; Keng, Tree Fl. Malaya 2 (1973) 285; Nooteboom, Fl. Males. I 10^3 (1988) 573; Keng, Conc. Fl. Sing. (1990) 9.

1401 **Magnolia villosa** (Miq.) H. Keng; Nooteboom, Fl. Males. I 10^3 (1988) 588; — *Talauma lanigera* Hook. *f.* & Thoms.; Ridley, Fl. Mal. Pen. 1 (1922) 15; — *Talauma villosa* Miq.; Keng, Tree Fl. Malaya 2 (1973) 293; Keng, Conc. Fl. Sing. (1990) 9.

MALPIGHIACEAE

1402 **Aspidopteris concava** (Wall.) Juss.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 329; Jacobs, Fl. Males. I 5^2 (1955) 129; Maxwell, Gard. Bull. Sing. 35 (1983) 195; Keng, Conc. Fl. Sing. (1990) 95.

1403 **Hiptage sericea** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55; Ridley, Fl. Mal. Pen. 1 (1922) 328; Jacobs, Fl. Males. I 5^2 (1955) 131; Keng, Conc. Fl. Sing. (1990) 95.

1404 **Tristellateia australasiae** A. Rich.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 55 (*australasica*); Ridley, Fl. Mal. Pen. 1 (1922) 327; Jacobs, Fl. Males. I 5^2 (1955) 136; Keng, Conc. Fl. Sing. (1990) 95.

MALVACEAE

A 1405 **Abelmoschus moschatus** Medik.; Kochummen, Tree Fl. Malaya 1 (1972) 310; Keng, Conc. Fl. Sing. (1990) 89; — *Hibiscus abelmoschus* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 258.

1406 **Abutilon indicum** (L.) Sweet; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 256; Henderson, Mal. Wild Fl. Dic. (1959) 37; Kochummen, Tree Fl. Malaya 1 (1972) 310; Keng, Conc. Fl. Sing. (1990) 89.

1407 **Hibiscus surattensis** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 258; Kochummen, Tree Fl. Malaya 1 (1972) 311; Keng, Conc. Fl. Sing. (1990) 90.

1408 **Hibiscus tiliaceus** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 259; Burkill, Dict. (1935) 1163; Kochummen, Tree Fl. Malaya 1 (1972) 312; Corner, Ways. Trees, 3rd ed. (1988) 482; Keng, Conc. Fl. Sing. (1990) 90.

1409 **Sida acuta** Burm. *f.*; Henderson, Mal. Wild Fl. Dic. (1959) 37; Keng, Conc. Fl. Sing. (1990) 90; — *Sida carpinifolia* L. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 50; Ridley, Fl. Mal. Pen. 1 (1922) 255.

1410 **Sida cordifolia** L.; Ridley, Fl. Mal. Pen. 1 (1922) 254; Henderson, Mal. Wild Fl. Dic. (1959) 39; Keng, Conc. Fl. Sing. (1990) 90.

1411 **Sida rhombifolia** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 254; Henderson, Mal. Wild Fl. Dic. (1959) 38; Keng, Conc. Fl. Sing. (1990) 90.

1412 **Thespesia populnea** (L.) Soland. *ex* Correa; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 260; Burkill, Dict. (1935) 2152; Corner, Ways. Trees 1st ed. (1940) 444; Kochummen, Tree Fl. Malaya 1 (1972) 313; Corner, Ways. Trees, 3rd ed. (1988) 483; Keng, Conc. Fl. Sing. (1990) 90.

1413 **Urena lobata** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 51; Ridley, Fl. Mal. Pen. 1 (1922) 256; Henderson, Mal. Wild Fl. Dic. (1959) 36; Kochummen, Tree Fl. Malaya 1 (1972) 310; Keng, Conc. Fl. Sing. (1990) 90.

MARANTACEAE

1414 **Donax grandis** (Miq.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 56; Ridley, Fl. Mal. Pen. 4 (1924) 286; Holttum, Gard. Bull. Sing. 13 (1951) 268; Henderson, Mal. Wild Fl. Monoc. (1954) 129.

1415 **Phrynium parvum** (Ridl.) Holtt., Gard. Bull. Sing. 13 (1951) 283; — *Stachyphrynium minus* (*non* Schum.) Ridl., Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 59; — *Stachyphrynium parvum* Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 288.

1416 **Phrynium villosulum** Miq.; Kennedy, Kew Bull. 43 (1988) 728; — *P. basiflorum* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 60; Ridley, Fl. Mal. Pen. 4 (1924) 289; Holttum, Gard. Bull. Sing. 13 (1951) 292.

Possibly merely planted at Bukit Timah Nature Reserve.

1417 **Schumannianthus dichotomus** (Roxb.) Gagnep.; Holttum, Gard. Bull. Sing. 13 (1951) 272; — *Donax arundastrum* (*non* Lour.) Schum.; Ridley, Fl. Mal. Pen. 4 (1924) 286.

1418 **Stachyphrynium griffithii** (Bak.) K. Schum.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 57; Ridley, Fl. Mal. Pen. 4 (1924) 287; Holttum, Gard. Bull. Sing. 13 (1951) 276; Henderson, Mal. Wild Fl. Monoc. (1954) 181; — *Phrynium griffithii* Bak.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166.

MELASTOMATACEAE

A 1419 **Clidemia hirta** (L.) D. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; Ridley, Fl. Mal. Pen. 1 (1922) 807; Henderson, Mal. Wild Fl. Dic. (1959) 128; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 81.

1420 **Diplectria divaricata** (Willd.) O. Ktze.; Veldkamp, Franken, Roos & Nayar, Blumea 24 (1978) 417; — *Anplectrum glaucum* (Jack) Triana; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 799; Burkill, Dict. (1935) 172; Henderson, Mal. Wild Fl. Dic. (1959) 131; — *Anplectrum divaricatum* (Willd.) Triana; Ridley, Fl. Mal. Pen. 1 (1922) 800; Burkill, Dict. (1935) 172; Henderson, Mal. Wild Fl. Dic. (1959) 131; — *D. glaucum* (Jack) Veldk.; Keng, Conc. Fl. Sing. (1990) 81.

1421 **Diplectria stipularis** (Bl.) O.Ktze.; Veldkamp, Franken, Roos & Nayar, Blumea 24 (1978) 424; — *Anplectrum annulatum* (Wall.) Triana; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; — *Anplectrum lepido-setosum* King; Ridley, Fl. Mal. Pen. 1 (1922) 799.

1422 **Diplectria viminalis** (Jack) O.Ktze.; Veldkamp, Franken, Roos & Nayar, Blumea 24 (1978) 427; Keng, Conc. Fl. Sing. (1990) 81; — *Anplectrum pallens* (Bl.) Triana; Ridley, Fl. Mal. Pen. 1 (1922) 800 (*incl var. petiolare* Ridl.); Henderson, Mal. Wild Fl. Dic. (1959) 132.

1423 **Dissochaeta annulata** Hook. *f. ex* Triana; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 796; Keng, Conc. Fl. Sing. (1990) 81.

1424 **Dissochaeta celebica** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 798; Henderson, Mal. Wild Fl. Dic. (1959) 130; Keng, Conc. Fl. Sing. (1990) 81.

1425 **Dissochaeta gracilis** (Jack) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 797; Henderson, Mal. Wild Fl. Dic. (1959) 130; Keng, Conc. Fl. Sing. (1990) 81.

1426 **Dissochaeta intermedia** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 798; Keng, Conc. Fl. Sing. (1990) 81.

1427 **Dissochaeta pallida** (Jack) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 797; Keng, Conc. Fl. Sing. (1990) 81.

1428 **Dissochaeta punctulata** Hook. *f. ex* Triana; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 796; Keng, Conc. Fl. Sing. (1990) 81.

1429 **Macrolenes echinulata** (Naud.) Bakh. *f.*; Maxwell, Malay. Nat. J. 35 (1982) 161; Keng, Conc. Fl. Sing. (1990) 81 ("*echinata*"); — *Marumia rhodocarpa* Cogn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 795.

1430 **Macrolenes nemorosa** (Jack) Bakh. *f.*; Maxwell, Malay. Nat. J. 35 (1982) 161; Keng, Conc. Fl. Sing. (1990) 81; — *Marumia nemorosa* (Jack) Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 795; Henderson, Mal. Wild Fl. Dic. (1959) 129.

1431 **Medinilla crassifolia** (Reinw. *ex* Bl.) Bl.; Maxwell, Gard. Bull. Sing. 31 (1978) 157; — *M. hasseltii* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; Ridley, Fl. Mal. Pen. 1 (1922) 802; Henderson, Mal. Wild Fl. Dic. (1959) 138.

1432 **Medinilla radicans** (Bl.) Bl.; Maxwell, Gard. Bull. Sing. 31 (1978) 169; Keng, Conc. Fl. Sing. (1990) 81; — *M. macrocarpa* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; — *M. crassinervia* (*non* Bl.) King; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 804; Henderson, Mal. Wild Fl. Dic. (1959) 137.

1433 **Melastoma malabathricum** L.; Ridley, Fl. Mal. Pen. 1 (1922) 764; Henderson, Mal. Wild Fl. Dic. (1959) 141; Corner, Ways. Trees, 3rd ed. (1988) 486; Keng, Conc. Fl. Sing. (1990) 81; — *M. polyanthum* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 765.

1434 **Memecylon acuminatum** Smith; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 817; Maxwell, Gard. Bull. Sing. 33 (1980) 57; Corner, Ways. Trees, 3rd ed. (1988) 488; Maxwell, Tree Fl. Malaya 4 (1989) 187.

1435 **Memecylon amplexicaule** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 815; Maxwell, Gard. Bull. Sing. 33 (1980) 58; Corner, Ways. Trees, 3rd ed. (1988) 488; Maxwell, Tree Fl. Malaya 4 (1989) 187; Keng, Conc. Fl. Sing. (1990) 81; — *M. microstomum* Clarke; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88.

1436 **Memecylon caeruleum** Jack; Ridley, Fl. Mal. Pen. 1 (1922) 816; Maxwell, Gard. Bull. Sing. 33 (1980) 61; Corner, Ways. Trees, 3rd ed. (1988) 489; Maxwell, Tree Fl. Malaya 4 (1989) 188; Keng, Conc. Fl. Sing. (1990) 81.

1437 **Memecylon campanulatum** Clarke; Ridley, Fl. Mal. Pen. 1 (1922) 818; Maxwell, Gard. Bull. Sing. 33 (1980) 63; Maxwell, Tree Fl. Malaya 4 (1989) 188.

1438 **Memecylon cantleyi** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 818; Maxwell, Gard. Bull. Sing. 33 (1980) 64; Maxwell, Gard. Bull. Sing. 35 (1983) 196; Maxwell, Tree Fl. Malaya 4 (1989) 188; Keng, Conc. Fl. Sing. (1990) 81.

1439 **Memecylon cinereum** King; Ridley, Fl. Mal. Pen. 1 (1922) 817; Maxwell, Gard. Bull. Sing. 33 (1980) 66; Maxwell, Tree Fl. Malaya 4 (1989) 187.

1440a **Memecylon edule** Roxb. *var.* **edule**; Maxwell, Gard. Bull. Sing. 33 (1980) 72; Maxwell, Tree Fl. Malaya 4 (1989) 189; Keng, Conc. Fl. Sing. (1990) 81; —*M. edule*; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 819; Corner, Ways. Trees, 3rd ed. (1988) 489.

1440b **Memecylon edule** *var.* **ovatum** (Sm.) Cl.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Maxwell, Gard. Bull. Sing. 33 (1980) 74; Maxwell, Tree Fl. Malaya 4 (1989) 190; Keng, Conc. Fl. Sing. (1990) 81; —*M. laxiflorum* Wall. *ex* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 815.

1441 **Memecylon excelsum** Bl.; Maxwell, Gard. Bull. Sing. 33 (1980) 76; Maxwell, Gard. Bull. Sing. 35 (1983) 196; Corner, Ways. Trees, 3rd ed. (1988) 489; Maxwell, Tree Fl. Malaya 4 (1989) 190; — *M. heteropleurum* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 813; — *M. maingayi* Cl.; Ridley, Fl. Mal. Pen. 1 (1922) 813.

1442 **Memecylon floridum** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 816; Maxwell, Gard. Bull. Sing. 33 (1980) 78; Maxwell, Tree Fl. Malaya 4 (1989) 190.

1443 **Memecylon fruticosum** King; Maxwell, Gard. Bull. Sing. 33 (1980) 79; Maxwell, Tree Fl. Malaya 4 (1989) 187; Keng, Conc. Fl. Sing. (1990) 81; —*M. sp. (5753)*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; —*M. campanulatum* (*non* Clarke) Ridl.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; — *M. epiphyticum* King; Ridley, Fl. Mal. Pen. 1 (1922) 811; — *M. tenuifolium* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 812.

1444 **Memecylon garcinioides** Bl.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 818; Maxwell, Gard. Bull. Sing. 33 (1980) 81; Corner, Ways. Trees, 3rd ed. (1988) 489; Maxwell, Tree Fl. Malaya 4 (1989) 191.

1445 **Memecylon globosum** Bakh. *f.*; Maxwell, Gard. Bull. Sing. 33 (1980) 82; Maxwell, Tree Fl. Malaya 4 (1989) 186; —*M. sp. (6788)*, Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86

1446 **Memecylon intermedium** Bl.; Maxwell, Gard. Bull. Sing. 33 (1980) 84; Maxwell, Tree Fl. Malaya 4 (1989) 186.

1447 **Memecylon lancifolium** Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 311; Maxwell, Gard. Bull. Sing. 33 (1980) 107; —*M. sp. (3840)*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86.

Only known from type which is in poor condition.

1448 **Memecylon lilacinum** Z. & M.; Maxwell, Gard. Bull. Sing. 33 (1980) 87; Maxwell, Tree Fl. Malaya 4 (1989) 190; Keng, Conc. Fl. Sing. (1990) 82; — *M. myrsinoides* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88 (*var. lilacinum* (Z. & M.) King); Ridley, Fl. Mal. Pen. 1 (1922) 817; Corner, Ways. Trees, 3rd ed. (1988) 490; — *M. laevigatum* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 817.

1449 **Memecylon megacarpum** Furtado; Maxwell, Gard. Bull. Sing. 33 (1980) 91; Maxwell, Tree Fl. Malaya 4 (1989) 193; Keng, Conc. Fl. Sing. (1990) 82.

1450 **Memecylon minutiflorum** Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 818; Maxwell, Gard. Bull. Sing. 33 (1980) 93; Maxwell, Tree Fl. Malaya 4 (1989) 193.

1451 **Memecylon oleifolium** Bl.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 814; Maxwell, Gard. Bull. Sing. 33 (1980) 95; Maxwell, Tree Fl. Malaya 4 (1989) 193; Keng, Conc. Fl. Sing. (1990) 82; — *M. grande* Retz.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 86.

1452 **Memecylon oligoneurum** Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 811; Maxwell, Gard. Bull. Sing. 33 (1980) 99.

1453 **Memecylon paniculatum** Jack; Maxwell, Gard. Bull. Sing. 33 (1980) 101; Maxwell, Tree Fl. Malaya 4 (1989) 194; Keng, Conc. Fl. Sing. (1990) 82.

1454 **Memecylon pauciflorum** Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 816; Maxwell, Gard. Bull. Sing. 33 (1980) 102.

1455 **Memecylon pubescens** (Cl.) King; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 88; Ridley, Fl. Mal. Pen. 1 (1922) 814; Maxwell, Gard. Bull. Sing. 33 (1980) 104; Maxwell, Tree Fl. Malaya 4 (1989) 195.

1456 **Ochthocharis borneensis** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 775; Henderson, Mal. Wild Fl. Dic. (1959) 144; Keng, Conc. Fl. Sing. (1990) 82.

1457 **Ochthocharis javanica** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 775; Henderson, Mal. Wild Fl. Dic. (1959) 145; Keng, Conc. Fl. Sing. (1990) 82.

1458 **Ochthocharis paniculata** Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Ridley, Fl. Mal. Pen. 1 (1922) 774; Keng, Conc. Fl. Sing. (1990) 82.

1459 **Pachycentria constricta** (Bl.) Bl.; Maxwell, Gard. Bull. Sing. 31 (1978) 202; Keng, Conc. Fl. Sing. (1990) 82; — *P. macrorrhiza* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; — *P. tuberculata* Korth.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 805; Henderson, Mal. Wild Fl. Dic. (1959) 140.

1460 **Pachycentria maingayi** (Clarke) Maxw.; Maxwell, Gard. Bull. Sing. 31 (1978) 203; Maxwell, Gard. Bull. Sing. 35 (1983) 196; Keng, Conc. Fl. Sing. (1990) 82; — *P. glauca* Triana; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; — *Medinilla maingayi* Clarke; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 803; Henderson, Mal. Wild Fl. Dic. (1959) 134.

1461 **Plethiandra sessiliflora** (Cogn.) Merr.; Ridley, Fl. Mal. Pen. 1 (1922) 806; Nayar, Reinwardtia 9 (1974) 149; Keng, Conc. Fl. Sing. (1990) 82.

1462 **Pogonanthera pulverulenta** (Jack) Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 805; Henderson, Mal. Wild Fl. Dic. (1959) 139; Maxwell, Gard. Bull. Sing. 31 (1978) 209; Keng, Conc. Fl. Sing. (1990) 82; — *P. reflexa* (Reinw. *ex* Bl.) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85.

1463 **Pternandra coerulescens** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 808; Corner, Ways. Trees 2nd ed. (1952) 452; Maxwell, Gard. Bull. Sing. 34 (1981) 26; Corner, Ways. Trees, 3rd ed. (1988) 491; Maxwell, Tree Fl. Malaya 4 (1989) 196; Keng, Conc. Fl. Sing. (1990) 82; — *P. capitellata* Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; Ridley, Fl. Mal. Pen. 1 (1922) 808; Corner, Ways. Trees, 3rd ed. (1988) 491; — *P. paniculata* Benth. *ex* Cl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; — *P. jackiana* (Walp.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 808.

1464 **Pternandra echinata** Jack; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 809 (*incl. vars*); Maxwell, Gard. Bull. Sing. 34 (1981) 42; Corner, Ways. Trees, 3rd ed. (1988) 491; Maxwell, Tree Fl. Malaya 4 (1989) 197; Keng, Conc. Fl. Sing. (1990) 82; — *Kibessia echinata* (Jack) Cogn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85; — *Kibessia acuminata* Decne.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 85.

1465 **Pternandra tuberculata** (Korth.) Nayar; Maxwell, Gard. Bull. Sing. 34 (1981) 73; Maxwell, Tree Fl. Malaya 4 (1989) 198; Keng, Conc. Fl. Sing. (1990) 82; — *P. paniculata* Benth. *ex* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 809.

1466 **Sonerila heterostemon** Naud.; Ridley, Fl. Mal. Pen. 1 (1922) 787; Henderson, Mal. Wild Fl. Dic. (1959) 116; Maxwell, Gard. Bull. Sing. 35 (1983) 196; Keng, Conc. Fl. Sing. (1990) 82; — *S. obliqua* (*non* Korth.) Cogn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84.

1467 **Sonerila moluccana** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; Keng, Conc. Fl. Sing. (1990) 82; — *S. heterophylla* Herb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 84; — *S. begoniifolia* Bl. "*begoniaefolia*"; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 790; Henderson, Mal. Wild Fl. Dic. (1959) 123.

MELIACEAE

1468 **Aglaia aspera** Teijsm. & Binn.; Pannell, Tree Fl. Malaya 4 (1989) 213; — *A. cinerea* King; Ridley, Fl. Mal. Pen. 1 (1922) 404.

1469 **Aglaia cordata** Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 409; Pannell, Tree Fl. Malaya 4 (1989) 213; Keng, Conc. Fl. Sing. (1990) 101.

1470 **Aglaia cucullata** (Roxb.) Pellegrin; Pannell, Tree Fl. Malaya 4 (1989) 214; Keng, Conc. Fl. Sing. (1990) 101; — *Amoora cucullata* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 399.

1471 **Aglaia exstipulata** (Griff.) Theob.; Pannell, Tree Fl. Malaya 4 (1989) 215; — *A. griffithii* (Hiern) Kurz; Ridley, Fl. Mal. Pen. 1 (1922) 409.

1472 **Aglaia glabriflora** Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 404; Pannell, Tree Fl. Malaya 4 (1989) 217; Keng, Conc. Fl. Sing. (1990) 101.

1473 **Aglaia meliosmoides** Craib; Pannell, Tree Fl. Malaya 4 (1989) 219; — *Beddomea racemosa* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 414.

1474 **Aglaia odoratissima** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 404; Corner, Ways. Trees, 3rd ed. (1988) 496; Pannell, Tree Fl. Malaya 4 (1989) 221; Keng, Conc. Fl. Sing. (1990) 101.

1475 **Aglaia oligophylla** Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 403; Pannell, Tree Fl. Malaya 4 (1989) 222; Keng, Conc. Fl. Sing. (1990) 101.

1476 **Aglaia palembanica** Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 409; Pannell, Tree Fl. Malaya 4 (1989) 223; Keng, Conc. Fl. Sing. (1990) 101.

1477 **Aglaia ridleyi** (King) Pannell; Pannell, Tree Fl. Malaya 4 (1989) 223; — *Amoora ridleyi* King; Ridley, Fl. Mal. Pen. 1 (1922) 398.

1478 **Aglaia rubescens** (Hiern) Pannell; Pannell, Tree Fl. Malaya 4 (1989) 223; Keng, Conc. Fl. Sing. (1990) 101; — *Amoora rubescens* Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 399.

1479 **Aglaia rubiginosa** (Hiern) Pannell; Pannell, Tree Fl. Malaya 4 (1989) 225; Keng, Conc. Fl. Sing. (1990) 101; — *Amoora rubiginosa* Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 59; Ridley, Fl. Mal. Pen. 1 (1922) 398.

1480 **Aglaia *sp.* 3**, Pannell, Tree Fl. Malaya 4 (1989) 228; — *Amoora lanceolata* Hiern; Ridley, Fl. Mal. Pen. 1 (1922) 399.

1481 **Aglaia tenuicaulis** Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 408; Pannell, Tree Fl. Malaya 4 (1989) 226.

1482 **Aglaia trichostemon** DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 407; Pannell, Tree Fl. Malaya 4 (1989) 227; Keng, Conc. Fl. Sing. (1990) 101.

1483 **Aphanamixis polystachya** (Wall.) Parker; Mabberley, Tree Fl. Malaya 4 (1989) 230; Keng, Conc. Fl. Sing. (1990) 101; — *Amoora aphanamixis* Schultes; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 59; — *A. rohituka* (Roxb.) Pierre; Ridley, Fl. Mal. Pen. 1 (1922) 401.

1484 **Aphanamixis sumatrana** (Miq.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 400; Mabberley, Tree Fl. Malaya 4 (1989) 231.

1485 **Chisocheton erythrocarpus** HIERN; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 388; MABBERLEY, Tree Fl. Malaya 4 (1989) 235; KENG, Conc. Fl. Sing. (1990) 101.

1486 **Chisocheton macrophyllus** KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 389; MABBERLEY, Tree Fl. Malaya 4 (1989) 235; KENG, Conc. Fl. Sing. (1990) 102.

1487 **Chisocheton patens** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; MABBERLEY, Tree Fl. Malaya 4 (1989) 235; KENG, Conc. Fl. Sing. (1990) 102; — *C. divergens* BL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 390; — *C. glomeratus* HIERN; RIDLEY, Fl. Mal. Pen. 1 (1922) 389.

1488 **Chisocheton pauciflorus** KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 387; MABBERLEY, Tree Fl. Malaya 4 (1989) 237; KENG, Conc. Fl. Sing. (1990) 102.

1489 **Chisocheton pentandrus** (BLANCO) MERR. *ssp.* **paucijugus** (MIQ.) MABB.; MABBERLEY, Tree Fl. Malaya 4 (1989) 238; KENG, Conc. Fl. Sing. (1990) 102; — *C. spicatus* HIERN; RIDLEY, Fl. Mal. Pen. 1 (1922) 387.

1490 **Dysoxylum acutangulum** MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 393; MABBERLEY, Tree Fl. Malaya 4 (1989) 240; KENG, Conc. Fl. Sing. (1990) 102.

1491 **Dysoxylum alliaceum** (BL.) BL.; MABBERLEY, Tree Fl. Malaya 4 (1989) 240; KENG, Conc. Fl. Sing. (1990) 102; — *D. costulatum* MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 394; — *D. pulchrum* RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 395; — *D. thyrsoideum* GRIFF.; RIDLEY, Fl. Mal. Pen. 1 (1922) 393; BURKILL, Dict. (1935) 886.

1492 **Dysoxylum cauliflorum** HIERN; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 396; CORNER, Ways. Trees, 3rd ed. (1988) 501; MABBERLEY, Tree Fl. Malaya 4 (1989) 242; KENG, Conc. Fl. Sing. (1990) 102.

1493 **Dysoxylum cyrtobotryum** MIQ.; MABBERLEY, Tree Fl. Malaya 4 (1989) 242; — *D. alternatum* RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 397; — *D. venulosum* KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 393; BURKILL, Dict. (1935) 886.

1494 **Dysoxylum densiflorum** (BL.) MIQ.; RIDLEY, Fl. Mal. Pen. 1 (1922) 396; MABBERLEY, Tree Fl. Malaya 4 (1989) 243.

1495 **Dysoxylum excelsum** BL.; MABBERLEY, Tree Fl. Malaya 4 (1989) 244; KENG, Conc. Fl. Sing. (1990) 102; — *D. macrothyrsum* MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 59; RIDLEY, Fl. Mal. Pen. 1 (1922) 394; — *D. turbinatum* KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 394.

1496 **Dysoxylum flavescens** HIERN; RIDLEY, Fl. Mal. Pen. 1 (1922) 396; MABBERLEY, Tree Fl. Malaya 4 (1989) 244; KENG, Conc. Fl. Sing. (1990) 102.

1497 **Dysoxylum** ***sp.*** **1**, MABBERLEY, Tree Fl. Malaya 4 (1989) 246.

1498 **Sandoricum beccarianum** BAILL.; MABBERLEY, Tree Fl. Malaya 4 (1989) 249; — *S. emarginatum* HIERN; RIDLEY, Fl. Mal. Pen. 1 (1922) 385; BURKILL, Dict. (1935) 1946.

1499 **Sandoricum koetjape** (Burm. *f.*) Merr.; Corner, Ways. Trees, 3rd ed. (1988) 504; Mabberley, Tree Fl. Malaya 4 (1989) 249; Keng, Conc. Fl. Sing. (1990) 102; — *S. indicum* Cav.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 59; Ridley, Fl. Mal. Pen. 1 (1922) 385; — *S. radiatum* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 59; — *S. maingayi* Hiern; Ridley, Fl. Mal. Pen. 1 (1922) 385; — *S. nervosum* Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 385; Burkill, Dict. (1935) 1948.

1500 **Turraea breviflora** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 383; Mabberley, Tree Fl. Malaya 4 (1989) 252; Keng, Conc. Fl. Sing. (1990) 103.

1501 **Walsura chrysogyne** (Miq.) Bakh. *f.*; Mabberley, Tree Fl. Malaya 4 (1989) 254; — *W. multijuga* King; Ridley, Fl. Mal. Pen. 1 (1922) 412.

1502 **Xylocarpus granatum** Koen.; Mabberley, Tree Fl. Malaya 4 (1989) 260; Keng, Conc. Fl. Sing. (1990) 103; — *Carapa obovata* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Watson, Malay. For. Rec. 6 (1927) 73; — *Carapa moluccensis* (*non* Lamk.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 414; — *Carapa granatum* (Koen.) Alston; Burkill, Dict. (1935) 452; Corner, Ways. Trees 1st ed. (1940) 458; Corner, Ways. Trees, 3rd ed. (1988) 497.

1503 **Xylocarpus moluccensis** Roem.; Mabberley, Tree Fl. Malaya 4 (1989) 260; Keng, Conc. Fl. Sing. (1990) 103; — *Carapa obovata* (*non* Bl.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 414; — *Carapa moluccensis* Lamk.; Watson, Malay. For. Rec. 6 (1927) 70; Corner, Ways. Trees 1st ed. (1940) 459, *p.p.*; Corner, Ways. Trees, 3rd ed. (1988) 498, *p.p.*

1504 **Xylocarpus rumphii** (Kostel.) Mabb.; Mabberley, Tree Fl. Malaya 4 (1989) 260; Keng, Conc. Fl. Sing. (1990) 103; — *Carapa moluccensis* Lamk. *sensu* Corner; Corner, Ways. Trees 1st ed. (1940) 459 *p.p.*; Corner, Ways. Trees, 3rd ed. (1988), 498 *p.p.*

MENISPERMACEAE

1505 **Cocculus orbiculatus** (L.) DC.; Forman, Fl. Males. I 10^1 (1984) 231; Keng, Conc. Fl. Sing. (1990) 21; — *Limacia kunstleri* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; — *C. ovalifolius* (Vahl *ex* Pers.) DC.; Ridley, Fl. Mal. Pen. 1 (1922) 110; — *C. elegans* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 111; — *C. sarmentosus* (Lour.) Diels; Henderson, Mal. Wild Fl. Dic. (1959) 417.

1506 **Coscinium fenestratum** (Gaertn.) Colebr.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; Forman, Fl. Males. I 10^1 (1984) 215; Keng, Conc. Fl. Sing. (1990) 21; — *C. wallichianum* Miers; Ridley, Fl. Mal. Pen. 1 (1922) 106; Burkill, Dict. (1935) 669; — *C. blumeanum sensu* Hook. *f.*; Ridley, Fl. Mal. Pen. 1 (1922) 106, *p.p.*

1507 **Cyclea laxiflora** Miers; Ridley, Fl. Mal. Pen. 1 (1922) 114; Burkill, Dict. (1935) 722; Henderson, Mal. Wild Fl. Dic. (1959) 415; Forman, Fl. Males. I 10^1 (1984) 241; Keng, Conc. Fl. Sing. (1990) 21; — *C. peltata* [*non* (Lamk.) Hook. *f.* & Thoms.] Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 43 ("*var. arnotti* Miers").

1508 **Fibraurea tinctoria** Lour.; Forman, Fl. Males. I 10¹ (1984) 207; Keng, Conc. Fl. Sing. (1990) 21; — *F. chloroleuca* Miers; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; Ridley, Fl. Mal. Pen. 1 (1922) 105; Burkill, Dict. (1935) 1000.

1509 **Hypserpa nitida** Miers; Forman, Fl. Males. I 10¹ (1984) 219; Keng, Conc. Fl. Sing. (1990) 21; — *H. triflora* [*non* (DC.) Miers] Miers; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; — *Limacia triandra* Miers; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84; — *H. cuspidata* (Hook. *f.* & Thoms.) Miers; Ridley, Fl. Mal. Pen. 1 (1922) 111; Burkill, Dict. (1935) 1219.

1510 **Limacia oblonga** Hook. *f.* & Thoms.; Ridley, Fl. Mal. Pen. 1 (1922) 109; Burkill, Dict. (1935) 1343; Forman, Fl. Males. I 10¹ (1984) 223; Keng, Conc. Fl. Sing. (1990) 21.

1511 **Limacia scandens** Lour.; Forman, Fl. Males. I 10¹ (1984) 223; Keng, Conc. Fl. Sing. (1990) 21; — *L. velutina* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; Ridley, Fl. Mal. Pen. 1 (1922) 109; Henderson, Mal. Wild Fl. Dic. (1959) 378.

1512 **Stephania capitata** (Bl.) Spreng.; Ridley, Fl. Mal. Pen. 1 (1922) 113; Maxwell, Gard. Bull. Sing. 35 (1983) 197; Forman, Fl. Males. I 10¹ (1984) 252; Keng, Conc. Fl. Sing. (1990) 21.

1513 **Tinomiscium petiolare** Miers *ex* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 42; Ridley, Fl. Mal. Pen. 1 (1922) 105; Burkill, Dict. (1935) 2163; Forman, Fl. Males. I 10¹ (1984) 205; Keng, Conc. Fl. Sing. (1990) 21; — *T. phytocrenoides* Kurz *ex* T. & B.; Burkill, Dict. (1935) 2136; — *T. philippinense* Diels; Burkill, Dict. (1935) 2163.

1514 **Tinospora crispa** (L.) Hook. *f.* & Thoms.; Ridley, Fl. Mal. Pen. 1 (1922) 103; Forman, Fl. Males. I 10¹ (1984) 194; Keng, Conc. Fl. Sing. (1990) 21; — *T. tuberculata* (Lamk.) Beumeé *ex* Heyne; Burkill, Dict. (1935) 2164.

1515 **Tinospora macrocarpa** Diels; Ridley, Fl. Mal. Pen. 1 (1922) 103; Forman, Fl. Males. I 10¹ (1984) 198.

MONIMIACEAE

1516 **Kibara coriacea** (Bl.) Tulasne; Ridley, Fl. Mal. Pen. 3 (1924) 75; Philipson, Fl. Males. I 10² (1986) 298; Ng, Tree Fl. Malaya 4 (1989) 261; — *K. chartacea* Bl.; Ridley, Fl. Mal. Pen. 3 (1924) 74; — *K. serrulata* Perkins; Ridley, Fl. Mal. Pen. 3 (1924) 75.

1517 **Matthaea sancta** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130; Ridley, Fl. Mal. Pen. 3 (1924) 73; Philipson, Fl. Males. I 10² (1986) 323; Ng, Tree Fl. Malaya 4 (1989) 263; Keng, Conc. Fl. Sing. (1990) 17.

MORACEAE

1518 **Antiaris toxicaria** Lesch.; Ridley, Fl. Mal. Pen. 3 (1924) 351; Kochummen, Tree Fl. Malaya 3 (1978) 120; Corner, Ways. Trees, 3rd ed. (1988) 510; Keng, Conc. Fl. Sing. (1990) 68.

1519 **Artocarpus anisophyllus** Miq.; Corner, Ways. Trees 1st ed. (1940) 652; Sinclair, Gard. Bull. Sing. 14 (1953) 38; Sinclair, Gard. Bull. Sing. 15 (1956) 30; Jarrett, J. Arn. Arb. 40 (1959) 138; Kochummen, Tree Fl. Malaya 3 (1978) 123; Corner, Ways. Trees, 3rd ed. (1988) 515; Keng, Conc. Fl. Sing. (1990) 68; — *A. superba* Becc.; Ridley, Fl. Mal. Pen. 3 (1924) 356; — *A. sp. "large tree with pinnate leaves"*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 148.

1520 **Artocarpus dadah** Miq.; Corner, Ways. Trees 1st ed. (1940) 653; Jarrett, J. Arn. Arb. 41 (1960) 91; Kochummen, Tree Fl. Malaya 3 (1978) 124; Corner, Ways. Trees, 3rd ed. (1988) 516; Keng, Conc. Fl. Sing. (1990) 69; — *A. lakoocha* (*non* Roxb.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 355.

1521 **Artocarpus elasticus** Reinw. *ex* Bl.; Burkill, Dict. (1935) 251; Corner, Ways. Trees 1st ed. (1940) 653; Jarrett, J. Arn. Arb. 40 (1959) 346; Kochummen, Tree Fl. Malaya 3 (1978) 124; Corner, Ways. Trees, 3rd ed. (1988) 516; Keng, Conc. Fl. Sing. (1990) 69; — *A. kunstleri* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 353.

1522 **Artocarpus fulvicortex** Jarrett, J. Arn. Arb. 41 (1960) 116; Kochummen, Tree Fl. Malaya 3 (1978) 126; Corner, Ways. Trees, 3rd ed. (1988) 517; — *A. sp.*; Corner, Ways. Trees 1st ed. (1940) 658.

1523 **Artocarpus gomezianus** Wall. *ex* Trec.; Jarrett, J. Arn. Arb. 41 (1960) 88; Kochummen, Tree Fl. Malaya 3 (1978) 126; Corner, Ways. Trees, 3rd ed. (1988) 517; Keng, Conc. Fl. Sing. (1990) 69.

1524 **Artocarpus hispidus** Jarrett, J. Arn. Arb. 40 (1959) 149; Kochummen, Tree Fl. Malaya 3 (1978) 126.

1525 **Artocarpus kemando** Miq.; Burkill, Dict. (1935) 256; Corner, Ways. Trees 1st ed. (1940) 656; Jarrett, J. Arn. Arb. 40 (1959) 352; Kochummen, Tree Fl. Malaya 3 (1978) 129; Corner, Ways. Trees, 3rd ed. (1988) 519.

1526 **Artocarpus lanceifolius** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 354; Corner, Ways. Trees 1st ed. (1940) 656; Jarrett, J. Arn. Arb. 40 (1959) 140; Kochummen, Tree Fl. Malaya 3 (1978) 129; Corner, Ways. Trees, 3rd ed. (1988) 519; Keng, Conc. Fl. Sing. (1990) 69.

1527 **Artocarpus lowii** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 353; Burkill, Dict. (1935) 257; Corner, Ways. Trees 1st ed. (1940) 656; Jarrett, J. Arn. Arb. 40 (1959) 339; Kochummen, Tree Fl. Malaya 3 (1978) 131; Corner, Ways. Trees, 3rd ed. (1988) 519; Keng, Conc. Fl. Sing. (1990) 69.

1528 **Artocarpus maingayi** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 354; Corner, Ways. Trees 1st ed. (1940) 657; Jarrett, J. Arn. Arb. 40 (1959) 357; Kochummen, Tree Fl. Malaya 3 (1978) 131; Corner, Ways. Trees, 3rd ed. (1988) 520; Keng, Conc. Fl. Sing. (1990) 69.

1529 **Artocarpus nitidus** Tréc. *ssp.* **griffithii** (King) Jarrett, J. Arn. Arb. 41 (1960) 128; — *A. gomezianus auct. non* Tréc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 355.

1530 **Artocarpus rigidus** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 352; Corner, Ways. Trees 1st ed. (1940) 657; Jarrett, J. Arn. Arb. 40 (1959) 150; Kochummen, Tree Fl. Malaya 3 (1978) 131; Corner, Ways. Trees, 3rd ed. (1988) 521; Keng, Conc. Fl. Sing. (1990) 69.

1531 **Artocarpus scortechinii** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 355; Corner, Ways. Trees 1st ed. (1940) 657; Jarrett, J. Arn. Arb. 40 (1959) 344; Kochummen, Tree Fl. Malaya 3 (1978) 134; Corner, Ways. Trees, 3rd ed. (1988) 521; Keng, Conc. Fl. Sing. (1990) 69.

1532 **Ficus albipila** (Miq.) King; Kochummen, Tree Fl. Malaya 3 (1978) 139; Keng, Conc. Fl. Sing. (1990) 69.

1533 **Ficus annulata** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 333; Kochummen, Tree Fl. Malaya 3 (1978) 140; Corner, Ways. Trees, 3rd ed. (1988) 538; Keng, Conc. Fl. Sing. (1990) 69.

1534 **Ficus apiocarpa** Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 146; Ridley, Fl. Mal. Pen. 3 (1924) 338; Kochummen, Tree Fl. Malaya 3 (1978) 140; Keng, Conc. Fl. Sing. (1990) 69.

1535 **Ficus aurantiacea** Griff.; Ridley, Fl. Mal. Pen. 3 (1924) 338; Kochummen, Tree Fl. Malaya 3 (1978) 140; Keng, Conc. Fl. Sing. (1990) 69; — *F. callicarpa* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 146; Ridley, Fl. Mal. Pen. 3 (1924) 338.

1536 **Ficus aurata** Miq.; Kochummen, Tree Fl. Malaya 3 (1978) 140; Corner, Ways. Trees, 3rd ed. (1988) 546; Keng, Conc. Fl. Sing. (1990) 70; — *F. chrysocarpa* Reinw. *ex* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 147; Ridley, Fl. Mal. Pen. 3 (1924) 348.

A 1537 **Ficus benjamina** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 336; Kochummen, Tree Fl. Malaya 3 (1978) 141; Corner, Ways. Trees, 3rd ed. (1988) 539; Keng, Conc. Fl. Sing. (1990) 70.

1538a **Ficus binnendykii** Miq. *var.* **binnendykii**; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 336; Kochummen, Tree Fl. Malaya 3 (1978) 141; Keng, Conc. Fl. Sing. (1990) 70.

1538b **Ficus binnendykii** *var.* **coriacea** Corner; Kochummen, Tree Fl. Malaya 3 (1978) 141.

1539 **Ficus botryocarpa** Miq.; Keng, Conc. Fl. Sing. (1990) 70; — *F. miquelii* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 341; Corner, Ways. Trees 1st ed. (1940) 685; — *F. schwarzii* Koord.; Kochummen, Tree Fl. Malaya 3 (1978) 155; Corner, Ways. Trees, 3rd ed. (1988) 552.

1540 **Ficus bracteata** Wall. *ex* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 331; Kochummen, Tree Fl. Malaya 3 (1978) 142; Keng, Conc. Fl. Sing. (1990) 70.

1541 **Ficus caulocarpa** MIQ.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 142; CORNER, Ways. Trees, 3rd ed. (1988) 539; KENG, Conc. Fl. Sing. (1990) 70.

1542 **Ficus chartacea** WALL. *ex* KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 147; RIDLEY, Fl. Mal. Pen. 3 (1924) 350; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 142; CORNER, Ways. Trees, 3rd ed. (1988) 547; KENG, Conc. Fl. Sing. (1990) 70.

1543 **Ficus consociata** BL. *var.* **murtoni** KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 144; KENG, Conc. Fl. Sing. (1990) 70; — *F. consociata*; RIDLEY, Fl. Mal. Pen. 3 (1924) 331; CORNER, Ways. Trees, 3rd ed. (1988) 540.

1544 **Ficus crassiramea** MIQ.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 144; CORNER, Ways. Trees, 3rd ed. (1988) 540; KENG, Conc. Fl. Sing. (1990) 70; — *F. procera* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145; RIDLEY, Fl. Mal. Pen. 3 (1924) 332; CORNER, Ways. Trees 1st ed. (1940) 678.

1545 **Ficus delosyce** CORNER; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 144.

1546 **Ficus deltoidea** JACK; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 145; CORNER, Ways. Trees, 3rd ed. (1988) 554; KENG, Conc. Fl. Sing. (1990) 70; — *F. diversifolia* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 346; CORNER, Ways. Trees 1st ed. (1940) 687.

1547 **Ficus dubia** WALL. *ex* KING; RIDLEY, Fl. Mal. Pen. 3 (1924) 333; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 146; CORNER, Ways. Trees, 3rd ed. (1988) 541; KENG, Conc. Fl. Sing. (1990) 70.

1548 **Ficus excavata** KING; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 146; KENG, Conc. Fl. Sing. (1990) 70.

1549 **Ficus fistulosa** REINW. *ex* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 343; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 146; CORNER, Ways. Trees, 3rd ed. (1988) 550; KENG, Conc. Fl. Sing. (1990) 70.

1550 **Ficus glandulifera** (WALL. *ex* MIQ.) KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 347; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 147; CORNER, Ways. Trees, 3rd ed. (1988) 547; KENG, Conc. Fl. Sing. (1990) 70.

1551 **Ficus globosa** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145; RIDLEY, Fl. Mal. Pen. 3 (1924) 333; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 147; KENG, Conc. Fl. Sing. (1990) 70.

1552 **Ficus grossularioides** BURM. *f.*; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 148; CORNER, Ways. Trees, 3rd ed. (1988) 547; KENG, Conc. Fl. Sing. (1990) 71; — *F. alba* REINW. *ex* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 147; RIDLEY, Fl. Mal. Pen. 3 (1924) 347; CORNER, Ways. Trees 1st ed. (1940) 681.

1553 **Ficus heteropleura** BL.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 148; KENG, Conc. Fl. Sing. (1990) 71; — *F. urophylla* WALL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 144; RIDLEY, Fl. Mal. Pen. 3 (1924) 330.

1554 **Ficus kerkhovenii** VAL.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 149; CORNER, Ways. Trees, 3rd ed. (1988) 541; KENG, Conc. Fl. Sing. (1990) 71.

1555 **Ficus laevis** BL.; RIDLEY, J. Str. Br. R. AS. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 344; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 149; KENG, Conc. Fl. Sing. (1990) 71.

1556 **Ficus lamponga** MIQ.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 150; KENG, Conc. Fl. Sing. (1990) 71; — *F. lepidosa* WALL. *ex* KURZ; RIDLEY, Fl. Mal. Pen. 3 (1924) 350.

1557 **Ficus microcarpa** L. *f.*; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 151; CORNER, Ways. Trees, 3rd ed. (1988) 542; KENG, Conc. Fl. Sing. (1990) 71; — *F. retusa auct. non* L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145 (*var. nitida*); RIDLEY, Fl. Mal. Pen. 3 (1924) 335; CORNER, Ways. Trees 1st ed. (1940) 679.

1558 **Ficus microsyce** RIDL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 335; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 151; KENG, Conc. Fl. Sing. (1990) 70.

1559 **Ficus obscura** BL. *var.* **borneensis** (MIQ.) CORNER; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 152; KENG, Conc. Fl. Sing. (1990) 71; — *F. pisifera* WALL. *ex* MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 144; RIDLEY, Fl. Mal. Pen. 3 (1924) 329; — *F. obscura*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 339.

1560 **Ficus pellucido-punctata** GRIFF.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 153; KENG, Conc. Fl. Sing. (1990) 71; — *F. indica* L. *var. gelderi* (MIQ.) KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145; RIDLEY, Fl. Mal. Pen. 3 (1924) 334.

1561 **Ficus pisocarpa** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900); RIDLEY, Fl. Mal. Pen. 3 (1924) 336; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 153; KENG, Conc. Fl. Sing. (1990) 71; — *F. microstoma* WALL. *ex* KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 145; RIDLEY, Fl. Mal. Pen. 3 (1924) 334.

A 1562 **Ficus pumila** L.; KENG, Conc. Fl. Sing. (1990) 71.

1563 **Ficus recurva** BL. *var.* **ribesoides** KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 154; — *F. recurva*; RIDLEY, Fl. Mal. Pen. 3 (1924) 345; KENG, Conc. Fl. Sing. (1990) 71.

A 1564 **Ficus religiosa** L.; RIDLEY, Fl. Mal. Pen. 3 (1924) 337; CORNER, Ways. Trees, 3rd ed. (1988) 548; CORLETT, J. Biogeog. (1988) 662; KENG, Conc. Fl. Sing. (1990) 71.

1565 **Ficus retusa** L.; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 154; KENG, Conc. Fl. Sing. (1990) 71; — *F. truncata* MIQ.; RIDLEY, Fl. Mal. Pen. 3 (1924) 335.

1566 **Ficus ruginervia** L.; KENG, Conc. Fl. Sing. (1990) 71.

1567 **Ficus sagittata** VAHL; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 155; KENG, Conc. Fl. Sing. (1990) 72; — *F. ramentacea* ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 146; RIDLEY, Fl. Mal. Pen. 3 (1924) 345.

1568 **Ficus scortechinii** King; Ridley, Fl. Mal. Pen. 3 (1924) 343; Kochummen, Tree Fl. Malaya 3 (1978) 156; Keng, Conc. Fl. Sing. (1990) 72; — *F. fasciculata* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 343.

1569 **Ficus sinuata** Thunb.; Kochummen, Tree Fl. Malaya 3 (1978) 156; Corner, Ways. Trees, 3rd ed. (1988) 554; Keng, Conc. Fl. Sing. (1990) 72; — *F. rostrata* Lamk.; Ridley, Fl. Mal. Pen. 3 (1924) 340.

1570a **Ficus subgelderi** Corner *var.* **subgelderi**; Kochummen, Tree Fl. Malaya 3 (1978) 157; Keng, Conc. Fl. Sing. (1990) 72.

1570b **Ficus subgelderi** *var.* **rigida** Corner; Kochummen, Tree Fl. Malaya 3 (1978) 157; Keng, Conc. Fl. Sing. (1990) 72; — *F. rigida* Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 332.

1571 **Ficus sundaica** Bl.; Kochummen, Tree Fl. Malaya 3 (1978) 158; Corner, Ways. Trees, 3rd ed. (1988) 543; Keng, Conc. Fl. Sing. (1990) 72; — *F. indica* (*non* L.) King; Ridley, Fl. Mal. Pen. 3 (1924) 334 (*excl. var. gelderi*); Corner, Ways. Trees 1st ed. (1940) 678.

1572 **Ficus superba** Miq.; Kochummen, Tree Fl. Malaya 3 (1978) 159; Corner, Ways. Trees, 3rd ed. (1988) 544; Keng, Conc. Fl. Sing. (1990) 72.

1573 **Ficus variegata** Bl.; Kochummen, Tree Fl. Malaya 3 (1978) 160; Corner, Ways. Trees, 3rd ed. (1988) 553; Keng, Conc. Fl. Sing. (1990) 72; — *F. polysyce* Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 342.

1574 **Ficus vasculosa** Wall. *ex* Miq.; Ridley, Fl. Mal. Pen. 3 (1924) 337; Kochummen, Tree Fl. Malaya 3 (1978) 160; Corner, Ways. Trees, 3rd ed. (1988) 549; Keng, Conc. Fl. Sing. (1990) 72.

1575 **Ficus villosa** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 146; Ridley, Fl. Mal. Pen. 3 (1924) 345; Kochummen, Tree Fl. Malaya 3 (1978) 161; Keng, Conc. Fl. Sing. (1990) 72.

1576 **Ficus virens** Ait. *var.* **glabella** (Bl.) Corner; Kochummen, Tree Fl. Malaya 3 (1978) 161; Corner, Ways. Trees, 3rd ed. (1988) 544; Keng, Conc. Fl. Sing. (1990) 72; — *F. glabella* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 336; EHC1 677.

1577 **Ficus xylophylla** Wall. *ex* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 145; Ridley, Fl. Mal. Pen. 3 (1924) 332; Kochummen, Tree Fl. Malaya 3 (1978) 162; Corner, Ways. Trees, 3rd ed. (1988) 545; Keng, Conc. Fl. Sing. (1990) 72.

1578 **Parartocarpus bracteatus** (King) Becc.; Jarrett, J. Arn. Arb. 41 (1960) 324; Kochummen, Tree Fl. Malaya 3 (1978) 164; Keng, Conc. Fl. Sing. (1990) 72; — *Artocarpus bracteatus* King; Ridley, Fl. Mal. Pen. 3 (1924) 352.

1579 **Parartocarpus venenosus** (Zoll. & Mor.) Becc. *ssp.* **forbesii** (King) Jarrett, J. Arn. Arb. 41 (1960) 137; Kochummen, Tree Fl. Malaya 3 (1978) 165; Keng, Conc. Fl. Sing. (1990) 72; — *Artocarpus forbesii* King; Ridley, Fl. Mal. Pen. 3 (1924) 352.

1580 **Streblus elongatus** (Miq.) Corner, Gard. Bull. Sing. 19 (1962) 227; Kochummen, Tree Fl. Malaya 3 (1978) 168; Corner, Ways. Trees, 3rd ed. (1988) 556; Keng, Conc. Fl. Sing. (1990) 72; — *Sloetia sideroxylon* T. & B. *ex* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 143; Ridley, Fl. Mal. Pen. 3 (1924) 324; — *Sloetia elongata* (Miq.) Koord.; Corner, Ways. Trees 1st ed. (1940) 690.

MYRICACEAE

1581 **Myrica esculenta** Buch.-Ham.; Backer, Fl. Males. I 4^3 (1951) 278; Whitmore, Tree Fl. Malaya 2 (1973) 295; Corner, Ways. Trees, 3rd ed. (1988) 559; Keng, Conc. Fl. Sing. (1990) 65; — *M. nagi* (*non* Thunb.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 149; — *M. farquhariana* Wall.; Ridley, Fl. Mal. Pen. 3 (1924) 370; Burkill, Dict. (1935) 1521; Corner, Ways. Trees 1st ed. (1940) 471.

MYRISTICACEAE

1582 **Endocomia canarioides** (King) de Wilde, Blumea 30 (1984) 190; — *Embelia ridleyi* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 234; Keng, Conc. Fl. Sing. (1990) 139; — *Horsfieldia canarioides* (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 55; — *Horsfieldia racemosa* (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 60, — *Horsfieldia macrocoma* (Miq.) Warb. *var. canarioides* (King) Sinclair; Sinclair, Gard. Bull. Sing. 16 (1958) 389; Whitmore, Tree Fl. Malaya 1 (1972) 327; Keng, Conc. Fl. Sing. (1990) 16.

1583 **Gymnacranthera bancana** (Miq.) Sinclair; Sinclair, Gard. Bull. Sing. 16 (1958) 436; Whitmore, Tree Fl. Malaya 1 (1972) 319; Schouten, Blumea 31 (1986) 463; Keng, Conc. Fl. Sing. (1990) 15; — *G. murtonii* Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 61; — *Myristica ferruginea* Wall. *ex* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1584a **Gymnacranthera farquhariana** (Hook. *f.* & Thoms.) Warb. *var.* **farquhariana**; Schouten, Blumea 31 (1986) 477; — *Myristica farquhariana* Wall. *ex* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *G. farquhariana var. griffithii* (Hook. *f.*) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 62; — *G. farquhariana var. major* (King); Ridley, Fl. Mal. Pen. 3 (1924) 62; — *G. eugeniifolia* (A. DC.) Sinclair *var. griffithii* (Hook. *f.*) Sinclair; Sinclair, Gard. Bull. Sing. 16 (1958) 447; Whitmore, Tree Fl. Malaya 1 (1972) 320.

1584b **Gymnacranthera farquhariana** *var.* **eugeniifolia** (A. DC.) Schouten; Schouten, Blumea 31 (1986) 480; Keng, Conc. Fl. Sing. (1990) 15; — *Myristica farquhariana auct. non* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *G. farquhariana auct. non* (Hook. *f.* & Thoms.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 62; — *G. eugeniifolia* (A. DC.) Sinclair *var. eugeniifolia*; Sinclair, Gard. Bull. Sing. 16 (1958) 444; Whitmore, Tree Fl. Malaya 1 (1972) 320.

1584c **Gymnacranthera farquhariana** *var.* **zippeliana** (Miq.) Schouten; Schouten, Blumea 31 (1986) 482; Keng, Conc. Fl. Sing. (1990) 15.

1585 **Gymnacranthera forbesii** (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 61; Sinclair, Gard. Bull. Sing. 16 (1958) 441; Whitmore, Tree Fl. Malaya 1 (1972) 320; Schouten, Blumea 31 (1986) 472; Keng, Conc. Fl. Sing. (1990) 15; — *Myristica forbesii* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1586 **Horsfieldia crassifolia** (Hook. *f.* & Thoms.) Warb. Ridley, Fl. Mal. Pen. 3 (1924) 59; Sinclair, Gard. Bull. Sing. 16 (1958) 386; Whitmore, Tree Fl. Malaya 1 (1972) 324; de Wilde, Gard. Bull. Sing. 38 (1985) 219; Keng, Conc. Fl. Sing. (1990) 15; — *Myristica crassifolia* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1587 **Horsfieldia grandis** (Hook. *f.*) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 56; Sinclair, Gard. Bull. Sing. 16 (1958) 400; Whitmore, Tree Fl. Malaya 1 (1972) 323; de Wilde, Gard. Bull. Sing. 38 (1985) 203.

1588 **Horsfieldia irya** (Gaertn.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 58; Corner, Ways. Trees 1st ed. (1940) 476; Sinclair, Gard. Bull. Sing. 16 (1958) 382; Whitmore, Tree Fl. Malaya 1 (1972) 326; de Wilde, Gard. Bull. Sing. 37 (1985) 55; Corner, Ways. Trees, 3rd ed. (1988) 564; Keng, Conc. Fl. Sing. (1990) 15; — *Myristica irya* Gaertn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

A 1589 **Horsfieldia parviflora** (Roxb.) Sinclair; de Wilde, Gard. Bull. Sing. 38 (1985) 69; — *Myristica bivalvis* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *H. bivalvis* (Hook. *f.*) Merr.; Sinclair, Gard. Bull. Sing. 16 (1958) 379; — *H. globularia* (Bl.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 54.

Introduced species established in the Botanic Gardens' Jungle.

1590a **Horsfieldia polyspherula** (Hook. *f. emend.* King) J. Sinclair *var.* **polyspherula**; de Wilde, Gard. Bull. Sing. 39 (1986) 19; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica polyspherula* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *H. polyspherula*; Sinclair, Gard. Bull. Sing. 16 (1958) 422, Whitmore, Tree Fl. Malaya 1 (1972) 325; — *H. lemmaniana auct. non* (A. DC.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 59.

1590b **Horsfieldia polyspherula** (Hook. *f. emend.* King) J. Sinclair *var.* **sumatrana** (Miq.) de Wilde; de Wilde, Gard. Bull. Sing. 39 (1986) 20; Keng, Conc. Fl. Sing. (1990) 16; — *H. subglobosa auct. non* (Miq.) Warb. Ridley, Fl. Mal. Pen. 3 (1924) 60; — *H. subglobosa var. subglobosa auct.*; Sinclair, Gard. Bull. Sing. 16 (1958) 425; — *H. brachiata* (King) Miq. *var. sumatrana* (Miq.) Sinclair *ex* Whitmore *nom. inval.*; Whitmore, Tree Fl. Malaya 1 (1972) 325; — *Myristica majuscula* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *H. majuscula* (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 57.

1591 **Horsfieldia punctatifolia** J. Sinclair, Gard. Bull. Sing. 16 (1958) 413; Whitmore, Tree Fl. Malaya 1 (1972) 327; de Wilde, Gard. Bull. Sing. 39 (1986) 54.

1592 **Horsfieldia sparsa** de Wilde Gard. Bull. Sing. 38 (1985) 194; — *H. sucosa auct. non* (King) Warb.; Sinclair, Gard. Bull. Sing. 16 (1958) 416.

1593 **Horsfieldia sucosa** (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 58; Sinclair, Gard. Bull. Sing. 16 (1958) 416; Whitmore, Tree Fl. Malaya 1 (1972) 328; de Wilde, Gard. Bull. Sing. 38 (1985) 188; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica sucosa* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *H. amygdalina* (Wall.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 57; — *H. bracteosa* Henderson; Sinclair, Gard. Bull. Sing. 16 (1958) 419, Whitmore, Tree Fl. Malaya 1 (1972) 326.

1594 **Horsfieldia superba** (Hook.*f.* & Thoms.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 55; Corner, Ways. Trees 1st ed. (1940) 476, EJHC2 476; Sinclair, Gard. Bull. Sing. 16 (1958) 393; Whitmore, Tree Fl. Malaya 1 (1972) 328; de Wilde, Gard. Bull. Sing. 38 (1985) 200; Corner, Ways. Trees, 3rd ed. (1988) 564; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica superba* Hook.*f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1595 **Horsfieldia tomentosa** Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 56; Sinclair, Gard. Bull. Sing. 16 (1958) 403; Whitmore, Tree Fl. Malaya 1 (1972) 324; de Wilde, Gard. Bull. Sing. 38 (1985) 210; Keng, Conc. Fl. Sing. (1990) 16.

1596 **Horsfieldia wallichii** (Hook.*f.* & Thoms.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 57; Sinclair, Gard. Bull. Sing. 16 (1958) 405; Whitmore, Tree Fl. Malaya 1 (1972) 330; de Wilde, Gard. Bull. Sing. 38 (1985) 204; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica wallichii* Hook.*f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1597 **Knema communis** Sinclair, Gard. Bull. Sing. 16 (1958) 297; Whitmore, Tree Fl. Malaya 1 (1972) 334; de Wilde, Gard. Bull. Sing. 38 (1985) 461.

1598 **Knema conferta** (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 70, Sinclair, Gard. Bull. Sing. 16 (1958) 286; Whitmore, Tree Fl. Malaya 1 (1972) 335; de Wilde, Blumea 25 (1979) 472; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica conferta* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130.

1599 **Knema curtisii** (King) Warb. *var.* **paludosa** J. Sinclair; de Wilde, Blumea 25 (1979) 420; — *Knema curtisii* (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 69, Sinclair, Gard. Bull. Sing. 16 (1958) 281; Whitmore, Tree Fl. Malaya 1 (1972) 334; Keng, Conc. Fl. Sing. (1990) 16.

1600 **Knema furfuracea** (Hook.*f.* & Thoms.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 70, Corner, Ways. Trees 1st ed. (1940) 476; Sinclair, Gard. Bull. Sing. 16 (1958) 275; Whitmore, Tree Fl. Malaya 1 (1972) 335; de Wilde, Blumea 25 (1979) 387; Corner, Ways. Trees, 3rd ed. (1988) 564; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica longifolia* (*non* Bl.) Hook.*f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130.

1601 **Knema glaucescens** Jack; Sinclair, Gard. Bull. Sing. 16 (1958) 302 *p.p.*; de Wilde, Blumea 25 (1979) 411; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica glauca* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) — *Myristica wrayi* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *K. wrayi* (King) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 70; — *K. cinerea* (Poir.) Warb. *var. sumatrana* (Miq.) J. Sinclair; Whitmore, Tree Fl. Malaya 1 (1972) 334

1602 **Knema globularia** (Lamk.) Warb.; Sinclair, Gard. Bull. Sing. 16 (1958) 325; Whitmore, Tree Fl. Malaya 1 (1972) 336; de Wilde, Blumea 25 (1979) 411; Corner, Ways. Trees, 3rd ed. (1988) 564; Keng, Conc. Fl. Sing. (1990) 16; — *K. missionis* Wall. *ex* King; Ridley, Fl. Mal. Pen. 3 (1924) 71, Corner, Ways. Trees 1st ed. (1940) 477.

1603 **Knema hookeriana** (Wall. *ex* Hook. *f.* & Thoms.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 67, Corner, Ways. Trees 1st ed. (1940) 476; Sinclair, Gard. Bull. Sing. 16 (1958) 272; Whitmore, Tree Fl. Malaya 1 (1972) 336; de Wilde, Blumea 25 (1979) 387; Corner, Ways. Trees, 3rd ed. (1988) 565; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica hookeriana* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130.

1604 **Knema intermedia** (Bl.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 68, Corner, Ways. Trees 1st ed. (1940) 477; Sinclair, Gard. Bull. Sing. 16 (1958) 315; Whitmore, Tree Fl. Malaya 1 (1972) 334; de Wilde, Blumea 25 (1979) 427; Corner, Ways. Trees, 3rd ed. (1988) 565; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica intermedia* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130.

1605 **Knema latericia** Elm. *ssp.* **ridleyi** (Gandoger) de Wilde; de Wilde, Blumea 25 (1979) 396; — *Knema latericia* Elm.; Sinclair, Gard. Bull. Sing. 16 (1958) 278; Keng, Conc. Fl. Sing. (1990) 16.

1606 **Knema laurina** (Bl.) Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 72, Sinclair, Gard. Bull. Sing. 16 (1958) 379; Whitmore, Tree Fl. Malaya 1 (1972) 338; de Wilde, Blumea 25 (1979) 379; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica laurina* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129; — *Myristica cantleyi* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 130; — *K. cantleyi* (Hook. *f.*) Warb. *p.p.*; Ridley, Fl. Mal. Pen. 3 (1924) 68.

1607 **Knema malayana** Warb.; Ridley, Fl. Mal. Pen. 3 (1924) 69, Sinclair, Gard. Bull. Sing. 16 (1958) 293; Whitmore, Tree Fl. Malaya 1 (1972) 338; de Wilde, Blumea 25 (1979) 456; Keng, Conc. Fl. Sing. (1990) 16; — *Myristica glaucescens* Hook. *f.* & Thoms.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 129.

1608 **Knema rubens** (Sinclair) de Wilde; de Wilde, Blumea 25 (1979) 379; — *K. glaucescens* Jack *var. glaucescens forma rubens* J. Sinclair; Gard. Bull. Sing. 16 (1958) 307; — *K. glaucescens* Jack *var. rubens* (J. Sinclair) J. Sinclair; Whitmore, Tree Fl. Malaya 1 (1972) 334.

1609 **Myristica cinnamomea** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 128; Ridley, Fl. Mal. Pen. 3 (1924) 63; Corner, Ways. Trees 1st ed. (1940) 477; Corner, Ways. Trees, 2nd ed. (1952) 477; Sinclair, Gard. Bull. Sing. 16 (1958) 358; Sinclair, Gard. Bull. Sing. 23 (1968) 210; Whitmore, Tree Fl. Malaya 1 (1972) 342; Corner, Ways. Trees, 3rd ed. (1988) 565; Keng, Conc. Fl. Sing. (1990) 16.

1610 **Myristica crassa** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 128; Ridley, Fl. Mal. Pen. 3 (1924) 66; Sinclair, Gard. Bull. Sing. 16 (1958) 366; Sinclair, Gard. Bull. Sing. 23 (1968) 435; Whitmore, Tree Fl. Malaya 1 (1972) 341; Keng, Conc. Fl. Sing. (1990) 16.

1611 **Myristica elliptica** WALL. *ex* HOOK. *f.* & THOMS.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 128; RIDLEY, Fl. Mal. Pen. 3 (1924) 65; CORNER, Ways. Trees 1st ed. (1940) 477; SINCLAIR, Gard. Bull. Sing. 16 (1958) 353; SINCLAIR, Gard. Bull. Sing. 23 (1968) 188; WHITMORE, Tree Fl. Malaya 1 (1972) 342; CORNER, Ways. Trees, 3rd ed. (1988) 565; KENG, Conc. Fl. Sing. (1990) 16.

1612 **Myristica iners** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 129; RIDLEY, Fl. Mal. Pen. 3 (1924) 64; SINCLAIR, Gard. Bull. Sing. 16 (1958) 363; SINCLAIR, Gard. Bull. Sing. 23 (1968) 177; WHITMORE, Tree Fl. Malaya 1 (1972) 343.

1613 **Myristica lowiana** KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 128; RIDLEY, Fl. Mal. Pen. 3 (1924) 66; SINCLAIR, Gard. Bull. Sing. 16 (1958) 345; SINCLAIR, Gard. Bull. Sing. 23 (1968) 164; WHITMORE, Tree Fl. Malaya 1 (1972) 344.

1614 **Myristica maingayi** HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 3 (1924) 64; SINCLAIR, Gard. Bull. Sing. 16 (1958) 348; SINCLAIR, Gard. Bull. Sing. 23 (1968) 166; WHITMORE, Tree Fl. Malaya 1 (1972) 344; CORNER, Ways. Trees, 3rd ed. (1988) 566; KENG, Conc. Fl. Sing. (1990) 16.

1615 **Myristica maxima** WARB.; RIDLEY, Fl. Mal. Pen. 3 (1924) 63; SINCLAIR, Gard. Bull. Sing. 16 (1958) 339; SINCLAIR, Gard. Bull. Sing. 23 (1968) 131; WHITMORE, Tree Fl. Malaya 1 (1972) 345; KENG, Conc. Fl. Sing. (1990) 16; — *M. bracteata* KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 128.

MYRSINACEAE

1616 **Aegiceras corniculatum** (L.) BLANCO; CORNER, Ways. Trees 1st ed. (1940) 479; HENDERSON, Mal. Wild Fl. Dic. (1959) 273; CORNER, Ways. Trees, 3rd ed. (1988) 567; STONE, Tree Fl. Malaya 4 (1989) 26; KENG, Conc. Fl. Sing. (1990) 138; — *A. majus* GAERTN.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 105; RIDLEY, Fl. Mal. Pen. 2 (1923) 238; WATSON, Malay. For. Rec. 6 (1928) 87.

1617 **Ardisia colorata** ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 246; CORNER, Ways. Trees, 3rd ed. (1988) 568; STONE, Tree Fl. Malaya 4 (1989) 276; KENG, Conc. Fl. Sing. (1990) 138.

1618 **Ardisia crassa** CLARKE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 249; STONE, Tree Fl. Malaya 4 (1989) 274; KENG, Conc. Fl. Sing. (1990) 138.

1619 **Ardisia crenata** SIMS; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 105; RIDLEY, Fl. Mal. Pen. 2 (1923) 253; STONE, Tree Fl. Malaya 4 (1989) 270; KENG, Conc. Fl. Sing. (1990) 138.

1620 **Ardisia elliptica** THUNB.; HENDERSON, Mal. Wild Fl. Dic. (1959) 271; CORNER, Ways. Trees, 3rd ed. (1988) 568; STONE, Tree Fl. Malaya 4 (1989) 275; KENG, Conc. Fl. Sing. (1990) 138; — *A. littoralis* ANDR.; RIDLEY, Fl. Mal. Pen. 2 (1923) 241.

1621 **Ardisia lanceolata** ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 249; CORNER, Ways. Trees, 3rd ed. (1988) 568; STONE, Tree Fl. Malaya 4 (1989) 276; KENG, Conc. Fl. Sing. (1990) 138.

1622 **Ardisia miqueliana** SCHEFF.; STONE, Tree Fl. Malaya 4 (1989) 273.

1623 **Ardisia ridleyi** KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 253; STONE, Tree Fl. Malaya 4 (1989) 271; KENG, Conc. Fl. Sing. (1990) 138.

1624 **Ardisia sessilis** SCHEFF.; STONE, Tree Fl. Malaya 4 (1989) 273.

1625 **Ardisia singaporensis** RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 251; STONE, Tree Fl. Malaya 4 (1989) 270; KENG, Conc. Fl. Sing. (1990) 138; — *A. sp. near villosa*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 105.

1626 **Ardisia teysmanniana** SCHEFF.; RIDLEY, Fl. Mal. Pen. 2 (1923) 240; STONE, Tree Fl. Malaya 4 (1989) 272; KENG, Conc. Fl. Sing. (1990) 138; — *Pimelandra wallichii* DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 105.

1627 **Ardisia tuberculata** WALL. *ex* A. DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 245; STONE, Tree Fl. Malaya 4 (1989) 273; KENG, Conc. Fl. Sing. (1990) 138.

1628 **Ardisia villosa** ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 105; RIDLEY, Fl. Mal. Pen. 2 (1923) 251; HENDERSON, Mal. Wild Fl. Dic. (1959) 272; SINCLAIR, 15 (1956) 29; STONE, Tree Fl. Malaya 4 (1989) 271; KENG, Conc. Fl. Sing. (1990) 138.

1629 **Embelia amentacea** CLARKE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 234; STONE, Tree Fl. Malaya 4 (1989) 278; KENG, Conc. Fl. Sing. (1990) 138.

1630 **Embelia canescens** JACK; RIDLEY, Fl. Mal. Pen. 2 (1923) 232; STONE, Tree Fl. Malaya 4 (1989) 279; KENG, Conc. Fl. Sing. (1990) 139.

1631 **Embelia coriacea** WALL. *ex* A. DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 233; STONE, Tree Fl. Malaya 4 (1989) 279; KENG, Conc. Fl. Sing. (1990) 139.

1632 **Embelia dasythyrsa** MIQ.; RIDLEY, Fl. Mal. Pen. 2 (1923) 232; STONE, Tree Fl. Malaya 4 (1989) 279.

1633 **Embelia lampani** SCHEFF.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 234; STONE, Tree Fl. Malaya 4 (1989) 279; KENG, Conc. Fl. Sing. (1990) 139.

1634 **Embelia ribes** BURM.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; HENDERSON, Mal. Wild Fl. Dic. (1959) 269; STONE, Tree Fl. Malaya 4 (1989) 279; KENG, Conc. Fl. Sing. (1990) 139; — *E. garciniaefolia* WALL. *ex* MIQ.; RIDLEY, Fl. Mal. Pen. 2 (1923) 232.

1635 **Labisia pumila** (BL.) F.-VILL.; STONE, Tree Fl. Malaya 4 (1989) 281; KENG, Conc. Fl. Sing. (1990) 139; — *L. pothoina* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 104; RIDLEY, Fl. Mal. Pen. 2 (1923) 237; HENDERSON, Mal. Wild Fl. Dic. (1959) 270.

Present as *var.* **lanceolata** (SCHEFF.) MIQ. as well as *var.* **pumila**.

1636 **Maesa ramentacea** Wall. *ex* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 103; Ridley, Fl. Mal. Pen. 2 (1923) 227; Corner, Ways. Trees 1st ed. (1940) 481; Corner, Ways. Trees, 3rd ed. (1988) 569; Stone, Tree Fl. Malaya 4 (1989) 283; Keng, Conc. Fl. Sing. (1990) 139.

1637 **Rapanea porteriana** Wall. *ex* A. DC.; Stone, Tree Fl. Malaya 4 (1989) 284; — *Myrsine avenis* (Bl.) DC.; Ridley, Fl. Mal. Pen. 2 (1923) 230; Keng, Conc. Fl. Sing. (1990) 139; — *Myrsine porteriana* Wall. *ex* A. DC.; Ridley, Fl. Mal. Pen. 2 (1923) 230; Corner, Ways. Trees, 3rd ed. (1988) 570; — *Myrsine umbellulata* (Wall.) DC.; Ridley, Fl. Mal. Pen. 2 (1923) 231; Corner, Ways. Trees, 3rd ed. (1988) 570; Keng, Conc. Fl. Sing. (1990) 139.

MYRTACEAE

1638 **Aphanomyrtus rostrata** Miq.; Merrill, Blumea Suppl. 1 (1937) 109; — *Pseudo-eugenia singaporensis* King; Ridley, Fl. Mal. Pen. 1 (1922) 755; Kochummen, Tree Fl. Malaya 3 (1978) 250.

1639 **Decaspermum fruticosum** J.R. & G. Forst.; Corner, Ways. Trees 1st ed. (1940) 484; Kochummen, Tree Fl. Malaya 3 (1978) 171; Corner, Ways. Trees, 3rd ed. (1988) 573; Keng, Conc. Fl. Sing. (1990) 76; — *D. paniculatum* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 717.

1640 **Eugenia attenuata** Koord. & Valet.; Henderson, Gard. Bull. Sing. 12 (1949) 238; Kochummen, Tree Fl. Malaya 3 (1978) 183; Corner, Ways. Trees, 3rd ed. (1988) 582; Keng, Conc. Fl. Sing. (1990) 77; — *E. penangiana* Duthie; Ridley, Fl. Mal. Pen. 1 (1922) 740; *p.p.*; Corner, Ways. Trees 1st ed. (1940) 501.

1641 **Eugenia avenis** (Miq.) Henders.; Henderson, Gard. Bull. Sing. 12 (1949) 171; Kochummen, Tree Fl. Malaya 3 (1978) 184; Keng, Conc. Fl. Sing. (1990) 77; — *E. scoparia* Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 748.

1642 **Eugenia caudata** King; Kochummen, Tree Fl. Malaya 3 (1978) 185.

One specimen (M.R. Henderson SFN 35931, Bukit Timah) possibly this species.

1643a **Eugenia cerina** Henders. *var.* **cerina**; Henderson, Gard. Bull. Sing. 12 (1949) 168; Kochummen, Tree Fl. Malaya 3 (1978) 185; Corner, Ways. Trees, 3rd ed. (1988) 583; Keng, Conc. Fl. Sing. (1990) 77; — *E. punctulata* (*non* F.M. Bailey) King; Ridley, Fl. Mal. Pen. 1 (1922) 747; Corner, Ways. Trees 1st ed. (1940) 502.

1643b **Eugenia cerina** *var.* **turbinata** Henderson, Gard. Bull. Sing. 12 (1949) 170; Kochummen, Tree Fl. Malaya 3 (1978) 186.

1644 **Eugenia chlorantha** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 734; Corner, Ways. Trees 1st ed. (1940) 494; Henderson, Gard. Bull. Sing. 12 (1949) 107; Kochummen, Tree Fl. Malaya 3 (1978) 186; Corner, Ways. Trees, 3rd ed. (1988) 583; — *E. hullettiana* King; Ridley, Fl. Mal. Pen. 1 (1922) 735.

1645 **Eugenia claviflora** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 742; Corner, Ways. Trees 1st ed. (1940) 495; Henderson, Gard. Bull. Sing. 12 (1949) 252; Kochummen, Tree Fl. Malaya 3 (1978) 186; Corner, Ways. Trees, 3rd ed. (1988) 584; Keng, Conc. Fl. Sing. (1990) 77.

1646 **Eugenia conglomerata** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 742; Henderson, Gard. Bull. Sing. 12 (1949) 198; Kochummen, Tree Fl. Malaya 3 (1978) 188; Keng, Conc. Fl. Sing. (1990) 77.

1647 **Eugenia cumingiana** Vidal; Corner, Ways. Trees 1st ed. (1940) 496; Henderson, Gard. Bull. Sing. 12 (1949) 260; Kochummen, Tree Fl. Malaya 3 (1978) 188; Corner, Ways. Trees, 3rd ed. (1988) 585; Keng, Conc. Fl. Sing. (1990) 77; — *E. acuminatissima* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 747.

1648 **Eugenia densiflora** (Bl.) Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 728; Corner, Ways. Trees 1st ed. (1940) 497; Henderson, Gard. Bull. Sing. 12 (1949) 78; Kochummen, Tree Fl. Malaya 3 (1978) 189; Corner, Ways. Trees, 3rd ed. (1988) 585; Keng, Conc. Fl. Sing. (1990) 77.

1649 **Eugenia duthieana** King; Ridley, Fl. Mal. Pen. 1 (1922) 731; Henderson, Gard. Bull. Sing. 12 (1949) 118; Kochummen, Tree Fl. Malaya 3 (1978) 190; Keng, Conc. Fl. Sing. (1990) 77.

1650a **Eugenia filiformis** Duthie *var.* **filiformis**; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 740; Corner, Ways. Trees 1st ed. (1940) 497; Henderson, Gard. Bull. Sing. 12 (1949) 145; Kochummen, Tree Fl. Malaya 3 (1978) 191; Corner, Ways. Trees, 3rd ed. (1988) 586; Keng, Conc. Fl. Sing. (1990) 77.

1650b **Eugenis filiformis** *var.* **clavimyrtus** (Koord. & Valet.) Henderson; Henderson, Gard. Bull. Sing. 12 (1949) 147; Kochummen, Tree Fl. Malaya 3 (1978) 191.

1651 **Eugenia flosculifera** Henderson; Henderson, Gard. Bull. Sing. 12 (1949) 237; Kochummen, Tree Fl. Malaya 3 (1978) 191.

1652 **Eugenia glauca** King; Ridley, Fl. Mal. Pen. 1 (1922) 737; Henderson, Gard. Bull. Sing. 12 (1949) 112; Kochummen, Tree Fl. Malaya 3 (1978) 193; Keng, Conc. Fl. Sing. (1990) 77.

1653 **Eugenia grandis** Wight; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 729; Corner, Ways. Trees 1st ed. (1940) 498; Henderson, Gard. Bull. Sing. 12 (1949) 87; Kochummen, Tree Fl. Malaya 3 (1978) 195; Corner, Ways. Trees, 3rd ed. (1988) 586; Keng, Conc. Fl. Sing. (1990) 77.

1654 **Eugenia griffithii** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 731; Henderson, Gard. Bull. Sing. 12 (1949) 120; Kochummen, Tree Fl. Malaya 3 (1978) 195; Keng, Conc. Fl. Sing. (1990) 77; — *E. subrufa* King; Ridley, Fl. Mal. Pen. 1 (1922) 733, *incl. var. robusta* King.

1655 **Eugenia inophylla** (DC.) Roxb.; Ridley, Fl. Mal. Pen. 1 (1922) 750; Henderson, Gard. Bull. Sing. 12 (1949) 141; Kochummen, Tree Fl. Malaya 3 (1978) 197.

1656 **Eugenia kunstleri** King; Ridley, Fl. Mal. Pen. 1 (1922) 746; Henderson, Gard. Bull. Sing. 12 (1949) 209; Kochummen, Tree Fl. Malaya 3 (1978) 199.

1657 **Eugenia leptostemon** (Korth.) Miq.; Henderson, Gard. Bull. Sing. 12 (1949) 201; Kochummen, Tree Fl. Malaya 3 (1978) 199; — *E. urceolata* [*non* (Korth.) Cordem.] King; Ridley, Fl. Mal. Pen. 1 (1922) 742.

1658 **Eugenia leucoxylon** (Korth.) Miq.; Henderson, Gard. Bull. Sing. 12 (1949) 235; Kochummen, Tree Fl. Malaya 3 (1978) 199; Corner, Ways. Trees, 3rd ed. (1988) 588; — *E. verecunda* Duthie; Ridley, Fl. Mal. Pen. 1 (1922) 748 (*incl. var. major* Ridl.); Corner, Ways. Trees 1st ed. (1940) 504.

1659 **Eugenia linocieroidea** King; Ridley, Fl. Mal. Pen. 1 (1922) 749; Henderson, Gard. Bull. Sing. 12 (1949) 163; Kochummen, Tree Fl. Malaya 3 (1978) 201; Keng, Conc. Fl. Sing. (1990) 78.

1660 **Eugenia longiflora** (Presl) F.-Vill.; Corner, Ways. Trees 1st ed. (1940) 499; Henderson, Gard. Bull. Sing. 12 (1949) 159; Kochummen, Tree Fl. Malaya 3 (1978) 201; Corner, Ways. Trees, 3rd ed. (1988) 588; Keng, Conc. Fl. Sing. (1990) 77; — *E. lineata* (*non* Lamk.) Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 738.

1661a **Eugenia microcalyx** Duthie *var.* **microcalyx**; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; Ridley, Fl. Mal. Pen. 1 (1922) 745 (*incl. var. obovata* King, *p.p.*); Henderson, Gard. Bull. Sing. 12 (1949) 205; Kochummen, Tree Fl. Malaya 3 (1978) 202; Keng, Conc. Fl. Sing. (1990) 78.

1661b **Eugenia microcalyx** *var.* **irregularis** (Craib) Henderson; Henderson, Gard. Bull. Sing. 12 (1949) 207; Kochummen, Tree Fl. Malaya 3 (1978) 202; — *E. microcalyx*; Corner, Ways. Trees 1st ed. (1940) 500; Corner, Ways. Trees, 3rd ed. (1988) 588.

1662 **Eugenia muelleri** Miq.; Henderson, Gard. Bull. Sing. 12 (1949) 186; Kochummen, Tree Fl. Malaya 3 (1978) 202; Corner, Ways. Trees, 3rd ed. (1988) 589; Keng, Conc. Fl. Sing. (1990) 78; — *E. venulosa* Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 746; Corner, Ways. Trees 1st ed. (1940) 504.

1663 **Eugenia nemestrina** Henderson; Henderson, Gard. Bull. Sing. 12 (1949) 192; Kochummen, Tree Fl. Malaya 3 (1978) 203.

1664 **Eugenia ngadimaniana** Henders.; Henderson, Gard. Bull. Sing. 12 (1949) 108; Kochummen, Tree Fl. Malaya 3 (1978) 203; Keng, Conc. Fl. Sing. (1990) 78.

1665 **Eugenia nigricans** King; Ridley, Fl. Mal. Pen. 1 (1922) 751; Henderson, Gard. Bull. Sing. 12 (1949) 194; Kochummen, Tree Fl. Malaya 3 (1978) 203; Keng, Conc. Fl. Sing. (1990) 78.

1666 **Eugenia oblata** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 749; Henderson, Gard. Bull. Sing. 12 (1949) 136; Kochummen, Tree Fl. Malaya 3 (1978) 204.

1667 **Eugenia oblongifolia** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 744; Henderson, Gard. Bull. Sing. 12 (1949) 184; Kochummen, Tree Fl. Malaya 3 (1978) 204; Keng, Conc. Fl. Sing. (1990) 78.

1668 **Eugenia oleina** Wight; Henderson, Gard. Bull. Sing. 12 (1949) 150; Kochummen, Tree Fl. Malaya 3 (1978) 205; Keng, Conc. Fl. Sing. (1990) 78; — *E. myrtifolia* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 750.

1669 **Eugenia pachyphylla** Kurz; Ridley, Fl. Mal. Pen. 1 (1922) 733; Corner, Ways. Trees 1st ed. (1940) 500; Henderson, Gard. Bull. Sing. 12 (1949) 90; Kochummen, Tree Fl. Malaya 3 (1978) 206; Corner, Ways. Trees, 3rd ed. (1988) 589; Keng, Conc. Fl. Sing. (1990) 78.

1670 **Eugenia palembanica** (Miq.) Merr.; Corner, Ways. Trees 1st ed. (1940) 500; Henderson, Gard. Bull. Sing. 12 (1949) 85; Kochummen, Tree Fl. Malaya 3 (1978) 206; Corner, Ways. Trees, 3rd ed. (1988) 589; Keng, Conc. Fl. Sing. (1990) 78; — *E. lepidocarpa* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 730; — *E. selangorensis* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 730; Henderson, Gard. Bull. Sing. 12 (1949) 84.

1671 **Eugenia papillosa** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 82; Ridley, Fl. Mal. Pen. 1 (1922) 730; Corner, Ways. Trees 1st ed. (1940) 501; Henderson, Gard. Bull. Sing. 12 (1949) 77; Kochummen, Tree Fl. Malaya 3 (1978) 207; Corner, Ways. Trees, 3rd ed. (1988) 589; Keng, Conc. Fl. Sing. (1990) 78.

1672 **Eugenia pauper** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 745; Henderson, Gard. Bull. Sing. 12 (1949) 178; Kochummen, Tree Fl. Malaya 3 (1978) 207.

1673 **Eugenia pendens** Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 81; Ridley, Fl. Mal. Pen. 1 (1922) 726; Henderson, Gard. Bull. Sing. 12 (1949) 71; Kochummen, Tree Fl. Malaya 3 (1978) 209.

1674 **Eugenia polyantha** Wight; Ridley, Fl. Mal. Pen. 1 (1922) 742; Corner, Ways. Trees 1st ed. (1940) 501; Henderson, Gard. Bull. Sing. 12 (1949) 211; Kochummen, Tree Fl. Malaya 3 (1978) 210; Corner, Ways. Trees, 3rd ed. (1988) 590; Keng, Conc. Fl. Sing. (1990) 78; — *E. nitida* Duthie; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 83; — *E. balsamea* (*non* Wight) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 754.

1675 **Eugenia pseudocrenulata** Henders.; Henderson, Gard. Bull. Sing. 12 (1949) 216; Kochummen, Tree Fl. Malaya 3 (1978) 211; Keng, Conc. Fl. Sing. (1990) 78; — *E. crenulata* (*non* Willd.) Duthie; Ridley, Fl. Mal. Pen. 1 (1922) 751.

1676 **Eugenia pseudoformosa** King; Ridley, Fl. Mal. Pen. 1 (1922) 725; Henderson, Gard. Bull. Sing. 12 (1949) 69; Kochummen, Tree Fl. Malaya 3 (1978) 211; Keng, Conc. Fl. Sing. (1990) 78.

1677 **Eugenia pseudosubtilis** King; Ridley, Fl. Mal. Pen. 1 (1922) 746; Corner, Ways. Trees 1st ed. (1940) 502; Henderson, Gard. Bull. Sing. 12 (1949) 202; Kochummen, Tree Fl. Malaya 3 (1978) 212; Corner, Ways. Trees, 3rd ed. (1988) 590; Keng, Conc. Fl. Sing. (1990) 78; — *E. cinerea* (*non* Kurz) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 744.

1678 **Eugenia pustulata** Duthie; Ridley, Fl. Mal. Pen. 1 (1922) 736; Henderson, Gard. Bull. Sing. 12 (1949) 188; Kochummen, Tree Fl. Malaya 3 (1978) 212; Keng, Conc. Fl. Sing. (1990) 78.

1679 **Eugenia ridleyi** KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 735; CORNER, Ways. Trees 1st ed. (1940) 503; HENDERSON, Gard. Bull. Sing. 12 (1949) 125; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 214; CORNER, Ways. Trees, 3rd ed. (1988) 591; KENG, Conc. Fl. Sing. (1990) 78.

1680 **Eugenia rugosa** (KORTH.) MERR.; HENDERSON, Gard. Bull. Sing. 12 (1949) 244 (*incl. var. saxitana* (RIDL.) HEND.); KOCHUMMEN, Tree Fl. Malaya 3 (1978) 215; KENG, Conc. Fl. Sing. (1990) 78; — *E. goodenovii* KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 731, *p.p.*; — *E. johorensis* (*non* RIDL.) RIDL.; RIDLEY, Fl. Mal. Pen. 5 (1925) 308.

? 1681 **Eugenia scortechinii** KING; HENDERSON, Gard. Bull. Sing. 12 (1949) 66; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 216.

One doubtful specimen from Singapore.

1682 **Eugenia spicata** LAMK.; CORNER, Ways. Trees 1st ed. (1940) 503; HENDERSON, Gard. Bull. Sing. 12 (1949) 231; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 217; CORNER, Ways. Trees, 3rd ed. (1988) 591; KENG, Conc. Fl. Sing. (1990) 78; — *E. zeylanica* (*non* WILLD.) WIGHT; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 82; RIDLEY, Fl. Mal. Pen. 1 (1922) 738; — *E. grata* WIGHT; RIDLEY, Fl. Mal. Pen. 1 (1922) 739; CORNER, Ways. Trees 1st ed. (1940) 498; HENDERSON, Gard. Bull. Sing. 12 (1949) 233; CORNER, Ways. Trees, 3rd ed. (1988) 587.

1683 **Eugenia** *sp.* **8**; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 225.

1684 **Eugenia** *sp.* **39**; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 237.

1685 **Eugenia subdecussata** DUTHIE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 82; RIDLEY, Fl. Mal. Pen. 1 (1922) 752; CORNER, Ways. Trees 1st ed. (1940) 503; HENDERSON, Gard. Bull. Sing. 12 (1949) 95; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 218; CORNER, Ways. Trees, 3rd ed. (1988) 591; KENG, Conc. Fl. Sing. (1990) 78.

1686 **Eugenia syzygioides** HENDERS.; HENDERSON, Gard. Bull. Sing. 12 (1949) 154; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 219; CORNER, Ways. Trees, 3rd ed. (1988) 592; KENG, Conc. Fl. Sing. (1990) 78; — *E. cymosa* WIGHT; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 81; RIDLEY, Fl. Mal. Pen. 1 (1922) 737, *p.p.*; CORNER, Ways. Trees 1st ed. (1940) 496; — *E. pseudosyzygioides* HEND.; HENDERSON, Gard. Bull. Sing. 12 (1949) 157.

1687 **Eugenia tumida** DUTHIE; CORNER, Ways. Trees 1st ed. (1940) 504; HENDERSON, Gard. Bull. Sing. 12 (1949) 161; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 221; CORNER, Ways. Trees, 3rd ed. (1988) 592; KENG, Conc. Fl. Sing. (1990) 78; — *E. pyrifolia* [*non* DESV.] (BL.) DUTHIE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 82; RIDLEY, Fl. Mal. Pen. 1 (1922) 738.

1688 **Eugenia virens** (BL.) KOORD. & VALET.; HENDERSON, Gard. Bull. Sing. 12 (1949) 249; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 222; — *E. fusiformis* DUTHIE; RIDLEY, Fl. Mal. Pen. 1 (1922) 727.

1689 **Melaleuca cajuputi** Powell; Kochummen, Tree Fl. Malaya 3 (1978) 248; Keng, Conc. Fl. Sing. (1990) 78; — *M. leucadendron* L. *s.l.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Ridley, Fl. Mal. Pen. 1 (1922) 713; Burkill, Dict. (1935) 1431; Corner, Ways. Trees 1st ed. (1940) 506; Corner, Ways. Trees, 3rd ed. (1988) 594.

1690 **Rhodamnia cinerea** Jack; Ridley, Fl. Mal. Pen. 1 (1922) 716; Kochummen, Tree Fl. Malaya 3 (1978) 250; Corner, Ways. Trees, 3rd ed. (1988) 596; Keng, Conc. Fl. Sing. (1990) 79; — *R. trinervia* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Burkill, Dict. (1935) 1902; Corner, Ways. Trees 1st ed. (1940) 507.

1691 **Rhodomyrtus tomentosa** (Ait.) Hassk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Ridley, Fl. Mal. Pen. 1 (1922) 717; Burkill, Dict. (1935) 1903; Corner, Ways. Trees 1st ed. (1940) 508; Kochummen, Tree Fl. Malaya 3 (1978) 251; Corner, Ways. Trees, 3rd ed. (1988) 597; Keng, Conc. Fl. Sing. (1990) 79.

1692 **Tristaniopsis merguensis** (Griff.) Wilson & Waterhouse, Aust. J. Bot. 30 (1982) 439; — *Tristania merguensis* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Ridley, Fl. Mal. Pen. 1 (1922) 715; Corner, Ways. Trees 1st ed. (1940) 509; Kochummen, Tree Fl. Malaya 3 (1978) 252; Corner, Ways. Trees, 3rd ed. (1988) 598; Keng, Conc. Fl. Sing. (1990) 79; — *Tristania maingayi* Duthie; Ridley, Fl. Mal. Pen. 1 (1922) 715; — *Tristania subauriculata* King; Ridley, Fl. Mal. Pen. 1 (1922) 714.

1693 **Tristaniopsis obovata** (R. Br.) Wilson & Waterhouse, Aust. J. Bot. 30 (1982) 439; — *Tristania obovata* R. Br.; Corner, Ways. Trees 1st ed. (1940) 509; Kochummen, Tree Fl. Malaya 3 (1978) 253; Corner, Ways. Trees, 3rd ed. (1988) 598; Keng, Conc. Fl. Sing. (1990) 79; — *Tristania spathulata* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 715.

1694 **Tristaniopsis whiteana** (Griff.) Wilson & Waterhouse, Aust. J. Bot. 30 (1982) 440; — *Tristania whiteana* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 80; Kochummen, Tree Fl. Malaya 3 (1978) 253; Keng, Conc. Fl. Sing. (1990) 79; — *Tristania sumatrana* Miq.; Corner, Ways. Trees 1st ed. (1940) 509; Corner, Ways. Trees, 3rd ed. (1988) 598.

NAJADACEAE

1695 **Najas indica** (Willd.) Cham.; de Wilde, Fl. Males. I 6^2 (1962) 166; — *N. minor* (*non* All.) Hook. *f.*; Ridley, Fl. Mal. Pen. 4 (1924) 366 — *N. kingii* Rendle; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 129; Ridley, Fl. Mal. Pen. 4 (1924) 366; Henderson, Mal. Wild Fl. Monoc. (1954) 205; Keng, Gard. Bull. Sing. 40 (1987) 115.

1696 **Najas malesiana** Delile; de Wilde, Fl. Males. I 6^2 (1962) 169; — *N. minor* (*non* All.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 180; — *N. graminea var. angustifolia* Rendle; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 90; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907)28; Ridley, Fl. Mal. Pen. 4 (1924) 366; — *N. graminea* (*non* Del.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 128; Ridley, Fl. Mal. Pen. 4 (1924) 365; Henderson, Mal. Wild Fl. Monoc. (1954) 205; Keng, Gard. Bull. Sing. 40 (1987) 115.

NEPENTHACEAE

1697 **Nepenthes ampullaria** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 126; Ridley, Fl. Mal. Pen. 3 (1924) 21; Henderson, Mal. Wild Fl. Dic. (1959) 428; Keng, Conc. Fl. Sing. (1990) 55.

1698 **Nepenthes gracilis** Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 126; Ridley, Fl. Mal. Pen. 3 (1924) 24; Henderson, Mal. Wild Fl. Dic. (1959) 430; Keng, Conc. Fl. Sing. (1990) 55.

1699 **Nepenthes hookeriana** Lindl.; Keng, Conc. Fl. Sing. (1990) 56.

1700 **Nepenthes rafflesiana** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 126; Ridley, Fl. Mal. Pen. 3 (1924) 24; Henderson, Mal. Wild Fl. Dic. (1959) 432; Keng, Conc. Fl. Sing. (1990) 55.

1701 **Nepenthes trichocarpa** Miq.; Keng, Conc. Fl. Sing. (1990) 56; — *N. phyllamphora* Willd.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 126; Ridley, Fl. Mal. Pen. 3 (1924) 25.

NYCTAGINACEAE

1702 **Boerhavia diffusa** L.; Ridley, Fl. Mal. Pen. 3 (1924) 1; Henderson, Mal. Wild Fl. Dic. (1959) 406; Stemmerik, Fl. Males. I 6^3 (1964) 454; Keng, Conc. Fl. Sing. (1990) 59; — *B. repens* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125.

NYMPHAEACEAE

1703 **Hydrostemma motleyi** (Hook. *f.*) Mabberl.; Keng, Conc. Fl. Sing. (1990) 22; — *Barclaya motleyi* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 43; Ridley, Fl. Mal. Pen. 1 (1922) 116.

OCHNACEAE

1704 **Brackenridgea hookeri** (Planch.) A. Gray; Kanis, Fl. Males. I 7^1 (1971) 102; Ng, Tree Fl. Malaya 3 (1978) 256; Keng, Conc. Fl. Sing. (1990) 53; — *Gomphia hookeri* Planch.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 57; Ridley, Fl. Mal. Pen. 1 (1922) 366; — *Ouratea hookeri* (Planch.) Burk.; Burkill, Dict. (1935) 1615.

1705 **Brackenridgea palustris** Bartell.; Kanis, Fl. Males. I 7^1 (1971) 102; Ng, Tree Fl. Malaya 3 (1978) 256; Keng, Conc. Fl. Sing. (1990) 53; — *Gomphia hookeri var. corymbosa* King; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84; — *Gomphia corymbosa* (King) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 367.

1706 **Euthemis leucocarpa** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 57; Ridley, Fl. Mal. Pen. 1 (1922) 368; Kanis, Fl. Males. I 7^1 (1971) 108; Ng, Tree Fl. Malaya 3 (1978) 257; Keng, Conc. Fl. Sing. (1990) 53.

1707 **Euthemis minor** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 58, Ridley, Fl. Mal. Pen. 1 (1922) 368; Kanis, Fl. Males. I 7^1 (1971) 108; Ng, Tree Fl. Malaya 3 (1978) 257; Keng, Conc. Fl. Sing. (1990) 54.

1708 **Gomphia serrata** (Gaertn.) Kanis; Kanis, Fl. Males. I 7^1 (1971) 105; Ng, Tree Fl. Malaya 3 (1978) 258; Keng, Conc. Fl. Sing. (1990) 54; — *G. sumatrana* Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 57; Ridley, Fl. Mal. Pen. 1 (1922) 365; — *G. oblongifolia* Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 296; — *Ouratea crocea* (Griff.) Burk. *p. p. excl. type*; Burkill, Dict. 1614

OLACACEAE

1709 **Anacalosa frutescens** (Bl.) Bl.; Sleumer, Fl. Males. I 10^1 (1984) 25; — *A. heptandra* Maing. *ex* Mast.; Ridley, Fl. Mal. Pen. 1 (1922) 425; Whitmore, Tree Fl. Malaya 2 (1973) 299.

1710 **Erythropalum scandens** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 436; Burkill, Dict. (1935) 949; Whitmore, Tree Fl. Malaya 2 (1973) 299; Sleumer, Fl. Males. I 10^1 (1984) 17; Keng, Conc. Fl. Sing. (1990) 127.

1711 **Ochanostachys amentacea** Mast.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 422; Whitmore, Tree Fl. Malaya 2 (1973) 302; Sleumer, Fl. Males. I 10^1 (1984) 14; Keng, Conc. Fl. Sing. (1990) 127.

1712 **Olax imbricata** Roxb.; Ridley, Fl. Mal. Pen. 1 (1922) 421; Whitmore, Tree Fl. Malaya 2 (1973) 300; Sleumer, Fl. Males. I 10^1 (1984) 8.

1713 **Scorodocarpus borneensis** Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 424; Whitmore, Tree Fl. Malaya 2 (1973) 303; Sleumer, Fl. Males. I 10^1 (1984) 15; Keng, Conc. Fl. Sing. (1990) 127.

1714 **Strombosia ceylanica** Gardn.; Sleumer, Fl. Males. I 10^1 (1984) 22; Keng, Conc. Fl. Sing. (1990) 127; — *S. rotundifolia* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 1 (1922) 425; — *S. multiflora* King; Ridley, Fl. Mal. Pen. 1 (1922) 425; Whitmore, Tree Fl. Malaya 2 (1973) 306; — *S. maingayi* (Mast.) Whitmore; Whitmore, Tree Fl. Malaya 2 (1973) 306.

1715 **Strombosia javanica** Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 425; Whitmore, Tree Fl. Malaya 2 (1973) 306; Sleumer, Fl. Males. I 10^1 (1984) 21; Keng, Conc. Fl. Sing. (1990) 127.

1716 **Ximenia americana** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 61; Ridley, Fl. Mal. Pen. 1 (1922) 424; Corner, Ways. Trees 1st ed. (1940) 728; Whitmore, Tree Fl. Malaya 2 (1973) 300; Sleumer, Fl. Males. I 10^1 (1984) 11; Corner, Ways. Trees, 3rd ed. (1988) 600; Keng, Conc. Fl. Sing. (1990) 127.

OLEACEAE

1717 **Chionanthus macrocarpus** Bl.; Kiew, Mal. Forest. 42 (1979) 271; Kiew, Gard. Bull. Sing. 37 (1984) 209; Kiew, Tree Fl. Malaya 4 (1989) 288; — *C. elaeocarpus* (Stapf) Kiew; Kiew, Mal. Forest. 42 (1979) 267.

1718 **Chionanthus ramiflorus** Roxb.; Corner, Ways. Trees, 3rd ed. (1988) 601; Kiew, Tree Fl. Malaya 4 (1989) 289; Keng, Conc. Fl. Sing. (1990) 150; — *Linociera pauciflora* (Wall.) Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 317.

1719 **Jasminum bifarium** Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 313; Henderson, Mal. Wild Fl. Dic. (1959) 276; Keng, Conc. Fl. Sing. (1990) 150.

1720 **Jasminum griffithii** Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 311; Keng, Conc. Fl. Sing. (1990) 150.

1721 **Jasminum longipetalum** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 314; Keng, Conc. Fl. Sing. (1990) 150.

1722 **Olea brachiata** (Lour.) Merr.; Corner, Ways. Trees, 3rd ed. (1988) 603; Kiew, Tree Fl. Malaya 4 (1989) 291; Keng, Conc. Fl. Sing. (1990) 150; — *O. maritima* Wall. *ex* Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 318; Henderson, Mal. Wild Fl. Dic. (1959) 277.

ONAGRACEAE

1723 **Ludwigia adscendens** (L.) Hara; Raven, Fl. Males. I 8^2 (1977) 104; Keng, Conc. Fl. Sing. (1990) 84; — *Jussiaea repens* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; Ridley, Fl. Mal. Pen. 1 (1922) 827; Henderson, Mal. Wild Fl. Dic. (1959) 148.

1724 **Ludwigia hyssopifolia** (G. Don) Exell; Raven, Fl. Males. I 8^2 (1977) 104; Keng, Conc. Fl. Sing. (1990) 84; — *Jussiaea suffruticosa* (*non* L.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; Ridley, Fl. Mal. Pen. 1 (1922) 827; — *Jussiaea linifolia* Vahl; Henderson, Mal. Wild Fl. Dic. (1959) 148.

1725 **Ludwigia octovalvis** (Jacq.) Raven; Raven, Fl. Males. I 8^2 (1977) 101; Keng, Conc. Fl. Sing. (1990) 85; — *Jussiaea angustifolia* Lamk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; — *Jussiaea erecta* (*non* L.) Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 827; — *Jussiaea villosa* Lamk.; Ridley, Fl. Mal. Pen. 1 (1922) 828; Henderson, Mal. Wild Fl. Dic. (1959) 149.

1726 **Ludwigia peruviana** (L.) Hara; Raven, Fl. Males. I 8^2 (1977) 100; Keng, Conc. Fl. Sing. (1990) 85; — *Jussiaea speciosa* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 828.

1727 **Ludwigia prostrata** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; Ridley, Fl. Mal. Pen. 1 (1922) 829; Henderson, Mal. Wild Fl. Dic. (1959) 150; Raven, Fl. Males. I 8^2 (1977) 103; Keng, Conc. Fl. Sing. (1990) 85.

I can find no evidence of **Ludwigia erecta** (L.) Hara (Keng, Conc. Fl. Sing. (1990) 84) ever having occurred in Singapore.

OPILIACEAE

1728 **Cansjera rheedii** J.F. Gmelin; Hiepko, Fl. Males. I 10^1 (1984) 50; Ng, Tree Fl. Malaya 4 (1989) 294; Keng, Conc. Fl. Sing. (1990) 128; — *C. zizyphifolia* Griff.; Ridley, Fl. Mal. Pen. 3 (1924) 172; Sinclair, Gard. Bull. Sing. 14 (1953) 35.

1729 **Champereia manillana** (Bl.) Merr.; Corner, Ways. Trees 1st ed. (1940) 514; Hiepko, Fl. Males. I 10[1] (1984) 35; Corner, Ways. Trees, 3rd ed. (1988) 604; Ng, Tree Fl. Malaya 4 (1989) 294; Keng, Conc. Fl. Sing. (1990) 128; — *C. griffithiana* Planch. *ex* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 133; — *C. griffithii* Planch. *ex* Kurz (*nom. illeg.*); Ridley, Fl. Mal. Pen. 3 (1924) 172; Burkill, Dict. (1935) 520.

1730 **Lepionurus sylvestris** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 60; Ridley, Fl. Mal. Pen. 3 (1924) 172; Burkill, Dict. (1935) 1353; Corner, Ways. Trees 1st ed. (1940) 515; Hiepko, Fl. Males. I 10[1] (1984) 43; Corner, Ways. Trees, 3rd ed. (1988) 605; Ng, Tree Fl. Malaya 4 (1989) 295; Keng, Conc. Fl. Sing. (1990) 128; — *L. oblongifolius* (Griff.) Mast.; Ridley, Fl. Mal. Pen. 3 (1924) 173.

ORCHIDACEAE

1731 **Acriopsis javanica** Reinw. *ex* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 187; Ridley, Fl. Mal. Pen. 4 (1924) 190; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 555; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 563.

1732 **Acriopsis ridleyi** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 188; Ridley, Fl. Mal. Pen. 4 (1924) 190; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 556; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 563.

1733 **Adenoncos sumatrana** J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 596; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 583; — *A. virens* (*non* Bl.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 149; Ridley, Fl. Mal. Pen. 4 (1924) 154.

1734 **Agrostophyllyum bicuspidatum** J.J.S.; Ridley, Fl. Mal. Pen. 4 (1924) 108; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 487; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 319; — *Appendicula callosa* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; — *Podochilus callosa* Schlecht.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 197.

1735 **Agrostophyllyum majus** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 107; Ridley, Fl. Mal. Pen. 4 (1924) 108; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 489; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 321.

1736 **Anoectochilus geniculatus** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 213; Ridley, Fl. Mal. Pen. 4 (1924) 213; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 127; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 73.

1737 **Aphyllorchis pallida** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 205; Ridley, Fl. Mal. Pen. 4 (1924) 205; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 102; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 44.

1738 **Apostasia nuda** R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 233; Ridley, Fl. Mal. Pen. 4 (1924) 297; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 66; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 37.

1739 **Appendicula anceps** Bl.; Ridley, Fl. Mal. Pen. 4 (1924) 195; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 505; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 329; — *A. lewisii* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; — *Podochilus anceps* (Bl.) Schlecht.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 193.

1740 **Appendicula cornuta** Bl.; Ridley, Fl. Mal. Pen. 4 (1924) 196; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 509; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 332; — *A. bifaria* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; — *Podochilus cornutus* (Bl.) Schlecht.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 194.

1741 **Appendicula lucida** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Fl. Mal. Pen. 4 (1924) 196; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 509; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 330; — *Podochilus lucidus* (Ridl.) Schlect.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 195.

1742 **Appendicula uncata** Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 196; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 508; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 330; — *Podochilus uncatus* (Ridl.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 194.

1743 **Arachnis hookeriana** (Hook. *f.*) Schltr.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 614; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 633; — *Renanthera alba* (Ridl.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 155; — *A. alba* (Ridl.) Schltr.; Ridley, Fl. Mal. Pen. 4 (1924) 159.

1744 **Arachnis maingayi** (Hook. *f*) Rchb. *f.*; Ridley, Fl. Mal. Pen. 4 (1924) 159; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 618; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 633; — *Renanthera maingayi* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 155.

1745 **Arundina graminifolia** (Don) Hochr.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 188; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 146; — *A. bambusifolia* Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 125; — *A. speciosa* Bl.; Ridley, Fl. Mal. Pen. 4 (1924) 126; — *A. revoluta* Hook. *f.*; Ridley, Fl. Mal. Pen. 4 (1924) 126.

1746 **Biermannia laciniata** (Carr) Garay; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 685; — *Chamaeanthus laciniatus* Carr; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 680.

1747 **Bromheadia alticola** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 144; Ridley, Fl. Mal. Pen. 4 (1924) 151; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 543; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 525.

1748 **Bromheadia aporoides** Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 145; Ridley, Fl. Mal. Pen. 4 (1924) 151; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 545; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 529.

1749a **Bromheadia finlaysoniana** (Lindl.) Rchb. *f. var.* **finlaysoniana**; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 541; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 525; — *B. palustris* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 143; Ridley, Fl. Mal. Pen. 4 (1924) 150.

1749b **Bromheadia finlaysoniana** *var.* **sylvestris** (Ridl.) Holtt.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 541; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 525; — *B. sylvestris* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 144; Ridley, Fl. Mal. Pen. 4 (1924) 150.

1750 **Bulbophyllum acuminatum** (Ridl.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 82; Ridley, Fl. Mal. Pen. 4 (1924) 79; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 414; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 447; — *Cirrhopetalum acuminatum* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; — *Cirrhopetalum semibifidum* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; — *B. semibifidum* (Ridl.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 82; Ridley, Fl. Mal. Pen. 4 (1924) 79; — *Cirrhopetalum linearifolium* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; — *B. stenophyllum* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 83; Ridley, Fl. Mal. Pen. 4 (1924) 80.

1751 **Bulbophyllum apodum** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 76; Ridley, Fl. Mal. Pen. 4 (1924) 73; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 446; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 463.

1752 **Bulbophyllum blumei** (Lindl.) J.J.S.; Ridley, Fl. Mal. Pen. 4 (1924) 74; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 406; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 517; — *Cirrhopetalum blumei* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; — *B. ephippium* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 78.

1753 **Bulbophyllum botryophorum** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 71; Ridley, Fl. Mal. Pen. 4 (1924) 69; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 457; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 494.

1754 **Bulbophyllum cleistogamum** Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 72; Ridley, Fl. Mal. Pen. 4 (1924) 69; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 401; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 493.

1755 **Bulbophyllum concinnum** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 74; Ridley, Fl. Mal. Pen. 4 (1924) 70; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 454; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 471.

? 1756 **Bulbophyllum flavescens** (Bl.) Lindl.; Vermeulen, Orchids of Borneo 2 (1991) 51; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 459; — *B. adenopetalum* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 75; Ridley, Fl. Mal. Pen. 4 (1924) 71; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 449.

Possibly only cultivated in Singapore.

1757 **Bulbophyllum limbatum** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 69; Ridley, Fl. Mal. Pen. 4 (1924) 65; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 460; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 435.

1758 **Bulbophyllum macranthum** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 63; Ridley, Fl. Mal. Pen. 4 (1924) 57; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 417; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 477.

1759 **Bulbophyllum macrochilum** Rolfe; Vermeulen, Orchids of Borneo 2 (1991) 153; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 493; — *B. stella* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 72; Ridley, Fl. Mal. Pen. 4 (1924) 69; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 401.

1760 **Bulbophyllum makoyanum** (Rchb. *f.*) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 81; Ridley, Fl. Mal. Pen. 4 (1924) 79; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 412; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 443; — *Cirrhopetalum makoyanum* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158.

1761 **Bulbophyllum medusae** (Lindl.) Rchb. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 79; Ridley, Fl. Mal. Pen. 4 (1924) 75; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 409; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 468; — *Cirrhopetalum medusae* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158.

1762 **Bulbophyllum membranaceum** Teijsm. & Binnend.; Ridley, Fl. Mal. Pen. 4 (1924) 64; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 430; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 501; — *B. avicella* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 67.

1763 **Bulbophyllum nigropurpureum** Carr; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 430; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 503.

1764 **Bulbophyllum ovalifolium** (Bl.) Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 436; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 513; — *B. catenarium* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 67; Ridley, Fl. Mal. Pen. 4 (1924) 61.

1765 **Bulbophyllum patens** King *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 62; Ridley, Fl. Mal. Pen. 4 (1924) 57; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 417; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 481.

1766 **Bulbophyllum pileatum** LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 63; RIDLEY, Fl. Mal. Pen. 4 (1924) 57; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 422; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 479.

1767 **Bulbophyllum pulchellum** RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 83; RIDLEY, Fl. Mal. Pen. 4 (1924) 80; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 415; W*S 449; — *Cirrhopetalum concinnum* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 158.

1768 **Bulbophyllum purpurascens** TEIJSM. & BINNEND.; RIDLEY, Fl. Mal. Pen. 4 (1924) 78; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 410; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 449; — *Cirrhopetalum citrinum* RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 158; — *B. citrinum* (RIDL.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 75.

1769 **Bulbophyllum restrepia** RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 78; RIDLEY, Fl. Mal. Pen. 4 (1924) 75; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 406; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 517.

1770 **Bulbophyllum ruficaudatum** RIDL.; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 445; — *Cirrhopetalum microbulbon* RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 158; — *B. microbulbon* (RIDL.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 82; RIDLEY, Fl. Mal. Pen. 4 (1924) 79; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 414.

1771 **Bulbophyllum rugosum** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 65; RIDLEY, Fl. Mal. Pen. 4 (1924) 60; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 421; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 475.

1772 **Bulbophyllum sessile** (KOEN.) J.J.SM.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 451; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 503; — *B. clandestinum* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 72; RIDLEY, Fl. Mal. Pen. 4 (1924) 69.

1773 **Bulbophyllum singaporeanum** SCHLTR.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 458; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 485; — *B. densiflorum* (*non* ROLFE) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 71; RIDLEY, Fl. Mal. Pen. 4 (1924) 68.

1774 **Bulbophyllum striatellum** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 67; RIDLEY, Fl. Mal. Pen. 4 (1924) 62; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 437; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 519.

1775 **Bulbophyllum tenuifolium** (BL.) LINDL.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 439; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 518.

1776 **Bulbophyllum trifolium** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 158; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 71; RIDLEY, Fl. Mal. Pen. 4 (1924) 68; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 457; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 495.

1777 **Bulbophyllum vaginatum** (LINDL.) RCHB.*f.*; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 80; RIDLEY, Fl. Mal. Pen. 4 (1924) 76; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 409; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 439; — *Cirrhopetalum vaginatum* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 158.

1778 **Bulbophyllum vermiculare** HOOK.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 74; RIDLEY, Fl. Mal. Pen. 4 (1924) 71; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 446; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 461.

1779 **Bulbophyllum vesiculosum** J.J.SM.; VERMEULEN, Orchids of Borneo 2 (1991) 133; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 507; — *B. corneri* CARR; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 428.

1780 **Calanthe pulchra** (BL.) LINDL.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 157; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 173; — *C. curculigoides* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 163, RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 122, RIDLEY, Fl. Mal. Pen. 4 (1924) 121.

1781 **Ceratostylis subulata** BL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 109; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 493; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 310; — *C. gracilis* (*non* BL.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 109.

1782 **Claderia viridiflora** HOOK.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 160; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 136; RIDLEY, Fl. Mal. Pen. 4 (1924) 140; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 184; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 531.

1783 **Cleisostoma halophilum** (RIDL.) GARAY, Bot. Mus. Leafl. Harv. Univ. 23 (1972) 171; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 623; — *Saccolabium halophilum* (RIDL.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 162; RIDLEY, Fl. Mal. Pen. 4 (1924) 168; — *Ascochilus teres* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 178; RIDLEY, Fl. Mal. Pen. 4 (1924) 181; — *Sarcanthus halophilus* (RIDL.) J.J. SMITH; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 161; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 653.

1784 **Cleisostoma scortechinii** (HOOK. *f.*) GARAY, Bot. Mus. Leafl. Harv. Univ. 23 (1972) 174; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 625; — *Saccolabium scortechinii* (HOOK.*f.*) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 167; RIDLEY, Fl. Mal. Pen. 4 (1924) 169; — *Sarcanthus scortechinii* HOOK.*f.*; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 655.

1785 **Coelogyne cumingii** LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 160; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 131; RIDLEY, Fl. Mal. Pen. 4 (1924) 134; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 249; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 209.

1786 **Coelogyne foerstermannii** Rchb. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 130; Ridley, Fl. Mal. Pen. 4 (1924) 132; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 251; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 209.

1787 **Coelogyne mayeriana** Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 131; Ridley, Fl. Mal. Pen. 4 (1924) 133; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 254; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 217.

1788 **Coelogyne rochussenii** de Vr.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 128; Ridley, Fl. Mal. Pen. 4 (1924) 131; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 257; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 213.

1789 **Coelogyne testacea** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 127; Ridley, Fl. Mal. Pen. 4 (1924) 129; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 259; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 215.

1790 **Cordiglottis filiformis** (Hook. *f.*) Garay; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 637; — *Dendrocolla filiformis* (Hook. *f.*) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 184; Ridley, Fl. Mal. Pen. 4 (1924) 187; — *Cheirorchis filiformis* (Hook. *f.*) Carr; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 679.

1791 **Corymborkis veratrifolia** (Reinw.) Bl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 144 (*Corymborchis*); Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 53; — *Corymbis longiflora* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 208, Ridley, Fl. Mal. Pen. 4 (1924) 208.

1792 **Cryptostylis arachnites** (Bl.) Hassk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 225; Ridley, Fl. Mal. Pen. 4 (1924) 225; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 103; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 49.

1793 **Cymbidium bicolor** Lindl. *ssp.* **pubescens** (Lindl.) Du Pay & Cribb; The Genus *Cymbidium* (1988) 73; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 551; — *C. aloifolium* (*non* Sw.) Ridl. *var. pubescens*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; — *C. pubescens* Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 140; Ridley, Fl. Mal. Pen. 4 (1924) 145; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 522.

1794 **Cymbidium finlaysonianum** Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 139; Ridley, Fl. Mal. Pen. 4 (1924) 145; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 520; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 551; — *C. aloifolium* (*non* Sw.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160.

1795a **Cystorchis variegata** Bl. *var.* **variegata**; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 212; Ridley, Fl. Mal. Pen. 4 (1924) 211; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 139; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 68.

1795b **Cystorchis variegata** *var.* **purpurea** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 164; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 212; RIDLEY, Fl. Mal. Pen. 4 (1924) 212; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 139; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 69.

1796 **Dendrobium acerosum** LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 156; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 43; RIDLEY, Fl. Mal. Pen. 4 (1924) 38; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 338; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 423.

? 1797 **Dendrobium aciculare** LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 155; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 57; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 403.

One collection of Loddiges dubiously from Singapore, though Seidenfaden (Nord. J. Bot. 1(1981) 193) does not entirely discount possibility of Singapore being the true locality.

1798 **Dendrobium aloifolium** (BL.) RCHB. *f.*; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 330; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 411; — *D. serra* (LINDL.) LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 155; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 38; RIDLEY, Fl. Mal. Pen. 4 (1924) 35.

1799 **Dendrobium bifarium** LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 156; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 45; RIDLEY, Fl. Mal. Pen. 4 (1924) 42; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 322; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 399.

1800 **Dendrobium concinnum** MIQ.; SEIDENFADEN, Op. Bot. 83 (1985) 229; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 419; — *D. atropurpureum* (*non* MIQ.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 155; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 40; RIDLEY, Fl. Mal. Pen. 4 (1924) 37; — *D. carnosum* (BL.) RCHB. *f.*; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 337.

1801 **Dendrobium crocatum** HOOK. *f.*; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 52; RIDLEY, Fl. Mal. Pen. 4 (1924) 47; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 320; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 378; — *D. pyropum* RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 157.

1802 **Dendrobium crumenatum** SW.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 156; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 48; RIDLEY, Fl. Mal. Pen. 4 (1924) 42; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 329; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 409.

1803 **Dendrobium flexile** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 156; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 42; RIDLEY, Fl. Mal. Pen. 4 (1924) 39; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 339; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 423.

1804 **Dendrobium grande** HOOK. *f.*; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 40; RIDLEY, Fl. Mal. Pen. 4 (1924) 36; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 332; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 413.

1805 **Dendrobium hendersonii** Hawkes & Heller; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 328; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 407.

1806 **Dendrobium indivisum** (Bl.) Miq.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 332; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 413; — *D. eulophotum* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 39; Ridley, Fl. Mal. Pen. 4 (1924) 35.

1807 **Dendrobium lamellatum** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 50; Ridley, Fl. Mal. Pen. 4 (1924) 46; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 317; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 373.

1808 **Dendrobium leonis** (Lindl.) Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 41; Ridley, Fl. Mal. Pen. 4 (1924) 37; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 334; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 417.

1809 **Dendrobium lobatum** (Bl.) Miq.; Ridley, Fl. Mal. Pen. 4 (1924) 36; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 332; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 413; — *D. rhizophoreti* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 39.

1810 **Dendrobium lobbii** Teijsm. & Binnend.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 342; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 427; — *D. conostalix* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 43; — *D. calcaratum* (*non* A. Rich.) Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 39.

1811 **Dendrobium microglaphys** Rchb. *f.*; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 389; — *D. callibotrys* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 49; Ridley, Fl. Mal. Pen. 4 (1924) 44; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 287.

1812 **Dendrobium pachyphyllum** (Kze.) Bakh. *f.*; Seidenfaden, Op. Bot. 83 (1985) 10; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 363; — *D. pumilum* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Fl. Mal. Pen. 4 (1924) 34; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 275; — *D. quadrangulare* (*non* Parish & Rchb. *f.*) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 35.

1813 **Dendrobium pandaneti** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 47; Ridley, Fl. Mal. Pen. 4 (1924) 44; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 324; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 395.

1814 **Dendrobium pensile** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 45; Ridley, Fl. Mal. Pen. 4 (1924) 40; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 340; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 425.

1815 **Dendrobium planibulbe** Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 41; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 328; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 407; — *D. tuberiferum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 48.

1816 **Dendrobium prostratum** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 41; Ridley, Fl. Mal. Pen. 4 (1924) 38; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 334; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 415.

? 1817 **Dendrobium pulchellum** Roxb. *ex* Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 293; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 383; — *D. dalhousieanum* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 157; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 57; Ridley, Fl. Mal. Pen. 4 (1924) 52.

Once recorded on a tree at Chan Chu Kang, otherwise only cultivated.

1818 **Dendrobium revolutum** Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 46; Ridley, Fl. Mal. Pen. 4 (1924) 43; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 323; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 399.

1819 **Dendrobium salaccense** (Bl.) Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 341; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 427; — *D. gemellum* (*non* Lindl.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 44; Ridley, Fl. Mal. Pen. 4 (1924) 40.

1820 **Dendrobium secundum** (Bl.) Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 50; Ridley, Fl. Mal. Pen. 4 (1924) 46; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 316; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 373.

1821 **Dendrobium setifolium** Ridl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 326; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 403; — *D. gracile* (*non* Bl.) Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 47; Ridley, Fl. Mal. Pen. 4 (1924) 41.

1822 **Dendrobium singaporense** Hawkes & Heller; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 337; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 420; — *D. teres* (*non* Roxb.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 42; Ridley, Fl. Mal. Pen. 4 (1924) 38.

1823 **Dendrobium sinuatum** (Lindl.) Lindl. *ex* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 40; Ridley, Fl. Mal. Pen. 4 (1924) 37; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 335; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 419.

1824 **Dendrobium spegidoglossum** Rchb. *f.*; Seidenfaden, Op. Bot. 83 (1985) 93; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 393; — *D. flavidulum* Ridl. *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 55; Ridley, Fl. Mal. Pen. 4 (1924) 45; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 311.

1825 **Dendrobium spurium** (Bl.) J.J.Sm.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 277; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 365; — *D. euphlebium* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 49; Ridley, Fl. Mal. Pen. 4 (1924) 44.

1826 **Dendrobium subulatum** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 43; Ridley, Fl. Mal. Pen. 4 (1924) 39; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 339; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 423.

1827 **Dendrobium villosulum** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 156; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 44; Ridley, Fl. Mal. Pen. 4 (1924) 40; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 429; — *D. melanochlamys* Holtt.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 342.

1828 **Dendrochilum ellipticum** Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 85; Ridley, Fl. Mal. Pen. 4 (1924) 83; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 234; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 191.

1829 **Dendrochilum longifolium** Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 229; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 185; — *Platyclinis longifolia* (Rchb. *f.*) Hemsl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 26; Ridley, Fl. Mal. Pen. 4 (1924) 25.

1830 **Didymoplexis pallens** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 206; Ridley, Fl. Mal. Pen. 4 (1924) 206; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 109; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 138.

1831 **Dilochia wallichii** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 125; Ridley, Fl. Mal. Pen. 4 (1924) 126; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 190; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 148.

1832 **Diplocaulobium longicolle** (Lindl.) Kraenzl.; Ridley, Fl. Mal. Pen. 4 (1924) 27; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 348; — *Dendrobium longicolle* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 34; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 263.

1833 **Dipodium scandens** (Bl.) J.J. Sm.; Comber, Orchids of Java (1990) 384; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 555; — *D. pictum* (Lindl.) Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 141; Ridley, Fl. Mal. Pen. 4 (1924) 147; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 513.

1834 **Eria bractescens** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 101; Ridley, Fl. Mal. Pen. 4 (1924) 91; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 388; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 295.

1835 **Eria floribunda** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 96; Ridley, Fl. Mal. Pen. 4 (1924) 89; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 384; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 285.

1836 **Eria hyacinthoides** (Bl.) Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 390; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 298; — *E. endymion* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 101; Ridley, Fl. Mal. Pen. 4 (1924) 91.

1837 **Eria javanica** (Sw.) Bl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 377; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 271; — *E. stellata* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 98; Ridley, Fl. Mal. Pen. 4 (1924) 96; — *E. striolata* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 99; Ridley, Fl. Mal. Pen. 4 (1924) 96.

1838 **Eria longe-repens** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 103; Ridley, Fl. Mal. Pen. 4 (1924) 95; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 372; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 293.

1839 **Eria neglecta** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 103; Ridley, Fl. Mal. Pen. 4 (1924) 95; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 368; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 293.

1840 **Eria nutans** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 103; Ridley, Fl. Mal. Pen. 4 (1924) 94; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 368; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 291.

1841 **Eria obliqua** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 158; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 89; Ridley, Fl. Mal. Pen. 4 (1924) 86; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 365; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 279.

1842 **Eria pannea** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 100; Ridley, Fl. Mal. Pen. 4 (1924) 99; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 380; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 273.

1843 **Eria pellipes** Hook. *f.*; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 273; — *E. teretifolia* (*non* Griff.) Griff.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 100; Ridley, Fl. Mal. Pen. 4 (1924) 99; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 379.

1844 **Eria pudica** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 104; Ridley, Fl. Mal. Pen. 4 (1924) 85; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 391; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 303.

1845 **Eria pulchella** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 372; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 275; — *Tylostylis rigida auct., non* Bl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 105; Ridley, Fl. Mal. Pen. 4 (1924) 104.

1846 **Eria robusta** (Bl.) Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 381; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 286; — *E. aeridostachya* Rchb.*f. ex* Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 97; Ridley, Fl. Mal. Pen. 4 (1924) 96; — *E. brunea* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 98; Ridley, Fl. Mal. Pen. 4 (1924) 97; — *E. linearifolia* Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 97; — *E. lorifolia* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 98; Ridley, Fl. Mal. Pen. 4 (1924) 98.

1847 **Eria tenuiflora** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 97; Ridley, Fl. Mal. Pen. 4 (1924) 90; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 393; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 306.

1848 **Eulophia graminea** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 137; Ridley, Fl. Mal. Pen. 4 (1924) 141; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 534; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 539.

1849 **Eulophia spectabilis** (Dennst.) Suresh.; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 541; — *E. squalida* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 137; Ridley, Fl. Mal. Pen. 4 (1924) 141; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 537.

1850 **Flickingeria angustifolia** (Bl.) Hawkes; Seidenfaden, Dansk Bot. Arkiv 34 (1980) 57; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 359; — *Dendrobium kelsallii* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 36; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 270; — *Dendrobium pallidiflorum* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 37; — *Desmotrichum kelsallii* Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 33; — *Desmotrichum pallidiflorum* Kranzl.; Ridley, Fl. Mal. Pen. 4 (1924) 31.

1851 **Flickingeria bancana** (J.J.Sm) Hawkes; Seidenfaden, Dansk. Bot. Arkiv 34 (1980) 57; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 360; — *Dendrobium lonchophyllum* [*non* Hook.*f.*] Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154, *p.p.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 35, *p.p.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 270, *p.p.*; — *Desmotrichum lonchophyllum* [*non* (Hook.*f.*) Kranzl.] Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 29, *p.p.*

1852 **Flickingeria comata** (Bl.) Hawkes; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 352; — *Dendrobium criniferum* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 36; — *Desmotrichum criniferum* Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 30; — *Dendrobium comatum* (Bl.) Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 266.

1853 **Flickingeria fimbriata** (Bl.) Hawkes; Seidenfaden, Dansk Bot. Arkiv 34 (1980) 21; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 355; — *Dendrobium flabellum* Rchb. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 36; Holttum 1st ed.; — *Desmotrichum fimbriatum* Bl.; Ridley, Fl. Mal. Pen. 4 (1924) 30; — *Dendrobium plicatile* Lindl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 267.

1854 **Flickingeria laciniosa** (Ridl.) Hawkes; Seidenfaden, Dansk Bot. Arkiv 34 (1980) 31; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 355; — *Dendrobium laciniosum* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 155; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 38; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 267; — *Desmotrichum fimbriatum* Kranzl.; Ridley, Fl. Mal. Pen. 4 (1924) 31.

1855 **Flickingeria xantholeuca** (Rchb. *f.*) Hawkes; Seidenfaden, Dansk Bot. Arkiv 34 (1980) 56; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 359; — *Dendrobium lonchophyllum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154, *p.p.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 35, *p.p.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 270, *p.p.*; — *Desmotrichum lonchophyllum* Kranzl.; Ridley, Fl. Mal. Pen. 4 (1924) 29, *p.p.*

1856 **Galeola nudifolia** Lour.; Seidenfaden, Dansk Bot. Arkiv 32 (1978) 134; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 130; — *G. hydra* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 202; Ridley, Fl. Mal. Pen. 4 (1924) 202; — *G. kuhlii* (Rchb. *f.*) Rchb. *f.*; Henderson, Mal. Wild Fl. Monoc. (1954) 39; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 99.

1857 **Gastrodia javanica** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Henderson, Mal. Wild Fl. Monoc. (1954) 40; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 110; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 140; — *G. malayana* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 207; Ridley, Fl. Mal. Pen. 4 (1924) 207.

1858 **Grammatophyllum speciosum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 142; Ridley, Fl. Mal. Pen. 4 (1924) 149; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 527; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 557.

1859 **Habenaria singapurensis** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 228; Ridley, Fl. Mal. Pen. 4 (1924) 229, Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 84; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 109.

1860 **Hetaeria nitida** Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 222; Ridley, Fl. Mal. Pen. 4 (1924) 222; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 116; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 95.

1861 **Hetaeria obliqua** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 222; Ridley, Fl. Mal. Pen. 4 (1924) 221; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 115; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 93.

1862 **Hylophila mollis** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 223; Ridley, Fl. Mal. Pen. 4 (1924) 223; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 119; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 57.

1863 **Lecanorchis malaccensis** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 206; Ridley, Fl. Mal. Pen. 4 (1924) 206; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 101; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 134.

1864 **Liparis elegans** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 24; Ridley, Fl. Mal. Pen. 4 (1924) 23; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 208; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 236.

1865 **Liparis ferruginea** Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 22; Ridley, Fl. Mal. Pen. 4 (1924) 20; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 203; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 233; — *L. nervosa*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154.

1866 **Liparis gibbosa** Finet; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 209; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 240; — *L. disticha* (*non* Thouars) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 26; Ridley, Fl. Mal. Pen. 4 (1924) 24.

1867 **Liparis tricallosa** Rchb. *f.*; Ridley, Fl. Mal. Pen. 4 (1924) 20; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 202; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 231; — *L. venosa auct., non* (Thou.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 22.

1868 **Liparis wrayi** Hook. *f.*; Ridley, Fl. Mal. Pen. 4 (1924) 21; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 203; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 231.

1869 **Macodes petola** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 215; Ridley, Fl. Mal. Pen. 4 (1924) 215; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 117; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 98.

1870 **Malaxis latifolia** J.E. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 195; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 219; — *Microstylis congesta* (Lindl.) Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 154; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907)4; Ridley, Fl. Mal. Pen. 4 (1924) 12.

1871 **Malaxis micrantha** (Hook. *f.*) O. Ktze.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 197; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 225; — *Microstylis micrantha* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907)4; Ridley, Fl. Mal. Pen. 4 (1924) 12.

1872 **Micropera fuscolutea** (Lindl.) Garay, Bot. Mus. Leafl. Harv. Univ. 23 (1972) 186; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 615; — *Sarcochilus adnatus* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 177; — *Saccolabium adnatum* (Ridl.) Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 174; — *Camarotis adnata* (Ridl.) Holtt.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 631.

1873 **Microsaccus ampullaceus** J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 594; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 582.

1874 **Microsaccus griffithii** (Par. & Rchb. *f.*) Seidenfaden, Op. Bot. 95 (1988) 25; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 581; — *M. brevifolius* J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 594.

1875 **Microsaccus javensis** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 172; Ridley, Fl. Mal. Pen. 4 (1924) 175; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 595; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 582.

1876 **Nephelaphyllum pulchrum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 116; Ridley, Fl. Mal. Pen. 4 (1924) 115; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 180; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 150.

1877 **Nervilia punctata** (Bl.) Makino; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 106; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 135; — *Pogonia punctata* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164, Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 203; — *Aplostellis punctata* (Bl.) Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 204.

1878 **Neuwiedia griffithii** Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 231; Ridley, Fl. Mal. Pen. 4 (1924) 296; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 64; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 34.

1879 **Neuwiedia veratrifolia** Bl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 64; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 32; — *N. lindleyi* Rolfe; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 231; Ridley, Fl. Mal. Pen. 4 (1924) 295.

1880 **Neuwiedia zollingeri** Rchb. *f. var.* **singapureana** (Bak.) de Vogel; de Vogel, Blumea 17 (1969) 331; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 34; — *N. curtisii* Rolfe; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 232; Ridley, Fl. Mal. Pen. 4 (1924) 297; — *N. singapureana* Rolfe; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 64.

1881 **Oberonia anceps** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 18; Ridley, Fl. Mal. Pen. 4 (1924) 15; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 219; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 247.

1882 **Oberonia bertoldii** King & Prantl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 19; Ridley, Fl. Mal. Pen. 4 (1924) 17; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 225; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 251.

1883 **Oberonia ciliolata** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 19; Ridley, Fl. Mal. Pen. 4 (1924) 16; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 220; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 247.

1884 **Oberonia dissitiflora** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 218; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 245; — *O. lunata* (Bl.) Lindl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 16 (*in part*); Ridley, Fl. Mal. Pen. 4 (1924) 14 (*in part*).

1885 **Oberonia flabellifera** Holtt.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 222; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 253.

1886 **Oberonia lunata** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 16 (*in part*); Ridley, Fl. Mal. Pen. 4 (1924) 14 (*in part*); Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 223; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 256.

1887 **Oberonia miniata** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 153; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 18; Ridley, Fl. Mal. Pen. 4 (1924) 16; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 220; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 249.

1888 **Oberonia stenophylla** Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 17; Ridley, Fl. Mal. Pen. 4 (1924) 15; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 222; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 254.

1889 **Peristylus candidus** J.J.Sm.; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 107; — *Habenaria lacertifera* (Lindl.) Benth.; Ridley, Fl. Mal. Pen. 4 (1924) 230 (*in part*); — *Habenaria sumatrana* (Schltr.) Schltr.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 88.

1890 **Peristylus lacertiferus** (Lindl.) J.J.Sm.; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 107; — *Habenaria lacertifera* (Lindl.) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 227; Ridley, Fl. Mal. Pen. 4 (1924) 230, Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 88; — *Habenaria maingayi* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 164.

1891 **Phaius tankervilliae** (Banks *ex* l'Hérit) Bl.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 172; Comber, Orchids of Java (1990) 101; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 176; — *P. wallichii* Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 123.

1892 **Plocoglottis gigantea** (Hook. *f.*) J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 160; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 183; — *P. foetida* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 160; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 113; Ridley, Fl. Mal. Pen. 4 (1924) 144.

1893 **Plocoglottis javanica** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 113; Ridley, Fl. Mal. Pen. 4 (1924) 143; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 159; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 181.

1894 **Plocoglottis lowii** Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 160; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 181; — *P. porphyrophylla* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 113; Ridley, Fl. Mal. Pen. 4 (1924) 144.

1895 **Podochilus microphyllus** Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Fl. Mal. Pen. 4 (1924) 193; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 500; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 333; — *P. sciuroides* Rchb. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 192.

1896 **Polystachya concreta** (Jacq.) Garay & Sweet; Seidenfaden, Op. Bot. 95 (1988) 14; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 566; — *P. singapurensis* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 146; Ridley, Fl. Mal. Pen. 4 (1924) 152; — *P. penangensis* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 146; Ridley, Fl. Mal. Pen. 4 (1924) 152; — *P. siamensis* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 146; Ridley, Fl. Mal. Pen. 4 (1924) 152; — *P. flavescens* (Bl.) J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 546.

1897 **Pomatocalpa latifolium** (Lindl.) J.J. Smith; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 628; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 613; — *Saccolabium hortense* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 166; Ridley, Fl. Mal. Pen. 4 (1924) 167; — *Saccolabium latifolium* Ridl. *var. parviflorum* Ridl.; Ridley, Fl. Mal. Pen. 4 (1924) 166.

1898 **Pteroceras pallidum** (Ridl.) Holtt.; Pedersen, Nord. J. Bot. 12 (1992) 388; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 675; — *Sarcochilus caligaris* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 175; Ridley, Fl. Mal. Pen. 4 (1924) 178; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 685.

1899 **Renanthera elongata** (Bl.) Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 156; Ridley, Fl. Mal. Pen. 4 (1924) 160; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 634; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 593.

1900 **Renanthera histrionica** Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 634; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 596; — *Renantherella histrionica* (Rchb. *f.*) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 157; Ridley, Fl. Mal. Pen. 4 (1924) 161.

1901 **Rhynchostylis gigantea** (Lindl.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 161; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 158; Ridley, Fl. Mal. Pen. 4 (1924) 163; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 704; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 661.

1902 **Robiquetia spathulata** (BL.) J.J. SMITH; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 714; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 662; — *Cleisostoma spicatum* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 161; — *Saccolabium densiflorum* LINDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 167; RIDLEY, Fl. Mal. Pen. 4 (1924) 170.

1903 **Sarcostoma javanica** BL.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 499; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 317; — *Ceratostylis cryptantha* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 110; RIDLEY, Fl. Mal. Pen. 4 (1924) 110; — *Ceratostylis linearis* RIDL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 110.

1904 **Schoenorchis micrantha** RIENW. *ex* BL.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 663; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 597; — *Saccolabium perpusillum* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 161; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 164; RIDLEY, Fl. Mal. Pen. 4 (1924) 171.

1905 **Schoenorchis secundiflora** (RIDL.) J.J. SMITH; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 662; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 597; — *Saccolabium secundiflorum* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 170; RIDLEY, Fl. Mal. Pen. 4 (1924) 173.

1906 **Spathoglottis plicata** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 159; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 117; RIDLEY, Fl. Mal. Pen. 4 (1924) 117; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 166; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 161.

1907 **Stereosandra javanica** BL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 224; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 108; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 143.

1908 **Taeniophyllum filiforme** J.J. SMITH; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 593; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 579; — *T. macrorrhizum* RIDL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 176.

1909 **Taeniophyllum obtusum** BL.; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 592; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 577; — *T. serrula* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 161, RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 173; RIDLEY, Fl. Mal. Pen. 4 (1924) 176.

1910 **Thelasis carinata** BL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 200; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 550; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 341; — *Oxyanthera elata* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 163; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 200.

1911 **Thelasis micrantha** (BRONGN.) J.J. SMITH; HOLTTUM, Rev. Fl. Malaya 1, 3rd ed. (1964) 551; SEIDENFADEN & WOOD, Orchids of Pen. Mal. & Sing. (1992) 341; — *Oxyanthera decurva* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 163; — *Oxyanthera micrantha* BRONGN.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 200; — *T. decurva* HOOK. *f.*; RIDLEY, Fl. Mal. Pen. 4 (1924) 200.

1912 **Thelasis pygmaea** (Griff.) Lindl.; Comber, Orchids of Java (1990) 211; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 341; — *T. elongata* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 199; Ridley, Fl. Mal. Pen. 4 (1924) 199; — *T. triptera* Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 550.

1913 **Thrixspermum acuminatissimum** (Bl.) Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 600; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 639; — *T. notabile* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 183; Ridley, Fl. Mal. Pen. 4 (1924) 186.

1914 **Thrixspermum amplexicaule** (Bl.) Rchb. *f.*; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 602; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 645; — *T. lilacinum* Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 181; Ridley, Fl. Mal. Pen. 4 (1924) 184.

1915 **Thrixspermum calceolus** (Lindl.) Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 181; Ridley, Fl. Mal. Pen. 4 (1924) 184; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 604; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 645.

1916 **Thrixspermum centipeda** Lour.; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 643; — *T. arachnites* (Bl.) Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 182; Ridley, Fl. Mal. Pen. 4 (1924) 185; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 601.

1917 **Thrixspermum ridleyanum** Schltr.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 611; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 651; — *Dendrocolla maculata* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 186; Ridley, Fl. Mal. Pen. 4 (1924) 188.

1918 **Thrixspermum scopa** (Hook. *f.*) Holtt.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 600; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 641.

1919 **Thrixspermum trichoglottis** (Hook. *f.*) O. Ktze.; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 611; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 655; — *Dendrocolla trichoglottis* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 162; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 185; Ridley, Fl. Mal. Pen. 4 (1924) 187.

1920 **Trichotosia gracilis** (Hook. *f.*) Kraenzl.; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 268; — *Eria oligantha* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 95; — *Eria gracilis* Hook. *f.*; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 95; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 362; — *T. velutina* Krzl., Ridley, Fl. Mal. Pen. 4 (1924) 101; — *T. oligantha* Krzl.; Ridley, Fl. Mal. Pen. 4 (1924) 103.

1921 **Trichotosia velutina** (Lodd. *ex* Lindl.) Kraenzl., Ridley, Fl. Mal. Pen. 4 (1924) 101; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 265; — *Eria velutina* Lodd. *ex* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 94; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 361.

1922 **Trichotosia vestita** (Lindl.) Kraenzl., Ridley, Fl. Mal. Pen. 4 (1924) 100; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 262; — *Eria vestita* Lindl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 159; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 92; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 359.

1923 **Tropidia curculigoides** Lindl.; Ridley, Fl. Mal. Pen. 4 (1924) 209; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 143; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 53; — *T. squamata* Bl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 209.

1924 **Vanilla griffithii** Rchb. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 201; Ridley, Fl. Mal. Pen. 4 (1924) 201; Henderson, Mal. Wild Fl. Monoc. (1954) 38; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 95; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 125.

1925 **Vrydagzynea albida** (Bl.) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 211; Ridley, Fl. Mal. Pen. 4 (1924) 211; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 138; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 65.

1926 **Vrydagzynea lancifolia** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 210; Ridley, Fl. Mal. Pen. 4 (1924) 210; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 137; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 65.

1927 **Vrydagzynea tristriata** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 163; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 211; Ridley, Fl. Mal. Pen. 4 (1924) 211; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 138; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 65.

1928 **Zeuxine clandestina** Bl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 1 (1907) 218; Ridley, Fl. Mal. Pen. 4 (1924) 217; Holttum, Rev. Fl. Malaya 1, 3rd ed. (1964) 135; Seidenfaden & Wood, Orchids of Pen. Mal. & Sing. (1992) 87.

OXALIDACEAE

1929 **Dapania racemosa** Korth.; Veldkamp, Fl. Males. I 7^1 (1971) 167; Keng, Conc. Fl. Sing. (1990) 96; — *D. scandens* Stapf; Ridley, Fl. Mal. Pen. 1 (1922) 334, Sinclair, Gard. Bull. Sing. 15 (1956) 23.

A 1930 **Oxalis barrelieri** L.; Ridley, Fl. Mal. Pen. 1 (1922) 330; Henderson, Mal. Wild Fl. Dic. (1959) 47; Veldkamp, Fl. Males. I 7^1 (1971) 155; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 96.

A 1931 **Oxalis corniculata** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 56; Ridley, Fl. Mal. Pen. 1 (1922) 330; Henderson, Mal. Wild Fl. Dic. (1959) 47; Veldkamp, Fl. Males. I 7[1] (1971) 155; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 96.

A 1932 **Oxalis corymbosa** DC.; Ridley, Fl. Mal. Pen. 1 (1922) 330; Henderson, Mal. Wild Fl. Dic. (1959) 47; Veldkamp, Fl. Males. I 7[1] (1971) 159; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 96.

1933 **Sarcotheca griffithii** (Planch. *ex* Hook. *f.*) Hall. *f.*; Veldkamp, Fl. Males. I 7[1] (1971) 170; Cockburn Tree Fl. Malaya 1 (1972) 349; Keng, Conc. Fl. Sing. (1990) 96; — *Connaropsis griffithii* Planch. *ex* Hook.*f.*; Ridley, Fl. Mal. Pen. 1 (1922) 332.

1934 **Sarcotheca laxa** (Ridl.) Knuth *var.* **sericea** (Ridl.) Veldk.; Veldkamp, Fl. Males. I 7[1] (1971) 171; — *Connaropsis macrophylla auct., non* King, Ridley, J. Str. Br. R. As. Soc. 33 (1900) 56; — *Connaropsis glabra* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 332.

PALMAE

1935 **Calamus densiflorus** Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 196; Ridley, Fl. Mal. Pen. 5 (1925) 53; Dransfield, Mal. Forest Rec. 29 (1979) 244; Keng, Gard. Bull. Sing. 40 (1987) 127.

1936 **Calamus diepenhorstii** Miq.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 199; Ridley, Fl. Mal. Pen. 5 (1925) 55; Dransfield, Mal. Forest Rec. 29 (1979) 246; Keng, Gard. Bull. Sing. 40 (1987) 127; — *C. singaporensis* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 199.

1937 **Calamus erinaceous** (Becc.) Dransf.; Dransfield, Mal. Forest Rec. 29 (1979) 130; Keng, Gard. Bull. Sing. 40 (1987) 127; — *C. aquatilis* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 210; Ridley, Fl. Mal. Pen. 5 (1925) 63.

1938 **Calamus insignis** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 193; Ridley, Fl. Mal. Pen. 5 (1925) 51; Dransfield, Mal. Forest Rec. 29 (1979) 212; Keng, Gard. Bull. Sing. 40 (1987) 127.

1939 **Calamus javensis** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Fl. Mal. Pen. 5 (1925) 49; Dransfield, Mal. Forest Rec. 29 (1979) 198; Keng, Gard. Bull. Sing. 40 (1987) 127; — *C. pencillatus* (*non* Roxb.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 191.

1940 **Calamus laevigatus** Mart.; Dransfield, Mal. Forest Rec. 29 (1979) 138; Keng, Gard. Bull. Sing. 40 (1987) 127; — *C. pallidulus* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 209; Ridley, Fl. Mal. Pen. 5 (1925) 62.

1941 **Calamus lobbianus** Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 204; Ridley, Fl. Mal. Pen. 5 (1925) 59; Dransfield, Mal. Forest Rec. 29 (1979) 190; Keng, Gard. Bull. Sing. 40 (1987) 127.

1942 **Calamus luridus** Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 198; Ridley, Fl. Mal. Pen. 5 (1925) 56; Dransfield, Mal. Forest Rec. 29 (1979) 237; Keng, Gard. Bull. Sing. 40 (1987) 128; — *C. laxiflorus* Becc.; Ridley, Fl. Mal. Pen. 5 (1925) 56; — *C. distans* Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 56.

1943 **Calamus ornatus** Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 195; Ridley, Fl. Mal. Pen. 5 (1925) 53; Dransfield, Mal. Forest Rec. 29 (1979) 201; Keng, Gard. Bull. Sing. 40 (1987) 128.

1944 **Calamus oxleyanus** Teijsm. & Binnend.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 208; Ridley, Fl. Mal. Pen. 5 (1925) 62; Dransfield, Mal. Forest Rec. 29 (1979) 148; Keng, Gard. Bull. Sing. 40 (1987) 128.

1945 **Calamus ridleyanus** Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 197; Ridley, Fl. Mal. Pen. 5 (1925) 54; Dransfield, Mal. Forest Rec. 29 (1979) 246; Keng, Gard. Bull. Sing. 40 (1987) 128; — ?*C. "sp. near radulosus"*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175.

1946 **Caryota mitis** Lour.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 174; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 157; Ridley, Fl. Mal. Pen. 5 (1925) 21; Whitmore, Palms of Malaya (1977) 44; Keng, Gard. Bull. Sing. 40 (1987) 128.

A 1947 **Cocos nucifera** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 176; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 132; Ridley, Fl. Mal. Pen. 5 (1925) 7; Whitmore, Palms of Malaya (1977) 48.

1948 **Cyrtostachys renda** Bl.; Keng, Gard. Bull. Sing. 40 (1987) 128; — *C. lakka* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 173; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 149; Ridley, Fl. Mal. Pen. 5 (1925) 17; Whitmore, Palms of Malaya (1977) 53.

1949 **Daemonorops angustifolia** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 174; Ridley, Fl. Mal. Pen. 5 (1925) 36; Dransfield, Mal. Forest Rec. 29 (1979) 78; Keng, Gard. Bull. Sing. 40 (1987) 128; — *D. hygrophilus* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; — *D. carcharodon* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 178; Ridley, Fl. Mal. Pen. 5 (1925) 40.

1950 **Daemonorops didymophylla** Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 180; Ridley, Fl. Mal. Pen. 5 (1925) 41; Dransfield, Mal. Forest Rec. 29 (1979) 90; Keng, Gard. Bull. Sing. 40 (1987) 128; — *D. cochleatus* T. & B.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 176.

1951 **Daemonorops geniculata** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 184; Ridley, Fl. Mal. Pen. 5 (1925) 44; Dransfield, Mal. Forest Rec. 29 (1979) 107.

1952 **Daemonorops grandis** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 177; Ridley, Fl. Mal. Pen. 5 (1925) 38; Dransfield, Mal. Forest Rec. 29 (1979) 80; Keng, Gard. Bull. Sing. 40 (1987) 128; — *D. intermedia* (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175.

1953 **Daemonorops hystrix** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 182; Ridley, Fl. Mal. Pen. 5 (1925) 42; Dransfield, Mal. Forest Rec. 29 (1979) 101; Keng, Gard. Bull. Sing. 40 (1987) 129.

1954 **Daemonorops kunstleri** Becc.; Ridley, Fl. Mal. Pen. 5 (1925) 43; Dransfield, Mal. Forest Rec. 29 (1979) 104.

1955 **Daemonorops leptopus** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 182; Ridley, Fl. Mal. Pen. 5 (1925) 42; Dransfield, Mal. Forest Rec. 29 (1979) 96; Keng, Gard. Bull. Sing. 40 (1987) 129; — *D. propinquus* (*non* Becc.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 175.

1956 **Daemonorops lewisiana** (Griff.) Mart.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 176; Ridley, Fl. Mal. Pen. 5 (1925) 38; Dransfield, Mal. Forest Rec. 29 (1979) 85; — *D. pseudosepal* Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 180; Ridley, Fl. Mal. Pen. 5 (1925) 40.

1957 **Daemonorops longipes** (Griff.) Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 176; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 184; Ridley, Fl. Mal. Pen. 5 (1925) 44; Dransfield, Mal. Forest Rec. 29 (1979) 117; Keng, Gard. Bull. Sing. 40 (1987) 129.

1958 **Daemonorops micracantha** (Griff.) Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 180; Ridley, Fl. Mal. Pen. 5 (1925) 41; Dransfield, Mal. Forest Rec. 29 (1979) 96; Keng, Gard. Bull. Sing. 40 (1987) 129.

1959 **Daemonorops periacantha** Miq.; Ridley, Fl. Mal. Pen. 5 (1925) 44; Dransfield, Mal. Forest Rec. 29 (1979) 117; Keng, Gard. Bull. Sing. 40 (1987) 129; — *D. dissitophylla* Becc.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 183.

1960 **Daemonorops sabut** Becc.; Ridley, Fl. Mal. Pen. 5 (1925) 46; Dransfield, Mal. Forest Rec. 29 (1979) 109.

1961 **Eleiodoxa conferta** (Griff.) Burret; Uhl & Dransfield, Genera Palmarum (1987) 249; — *Salacca conferta* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 176; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 169; Ridley, Fl. Mal. Pen. 5 (1925) 32 (*"Zalacca"*); Whitmore, Palms of Malaya (1977) 106; Keng, Gard. Bull. Sing. 40 (1987) 132.

1962 **Iguanura wallichiana** (Wall. *ex* Mart.) Hook. *f.*; Kiew, Gard. Bull. Sing. 28 (1976) 216; — *I. geonomaeformis* Griff. *ex* Mart.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 173; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 151; Ridley, Fl. Mal. Pen. 5 (1925) 13; Whitmore, Palms of Malaya (1977) 63; Keng, Gard. Bull. Sing. 40 (1987) 129; — *I. malaccensis* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 173.

1963 **Korthalsia echinometra** BECC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 215; RIDLEY, Fl. Mal. Pen. 5 (1925) 68; DRANSFIELD, Mal. Forest Rec. 29 (1979) 47; DRANSFIELD, Kew Bull. 36 (1981) 188; KENG, Gard. Bull. Sing. 40 (1987) 129.

1964 **Korthalsia laciniosa** (GRIFF.) MART.; DRANSFIELD, Kew Bull. 36 (1981) 179; — *K. grandis* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 217; RIDLEY, Fl. Mal. Pen. 5 (1925) 69; DRANSFIELD, Mal. Forest Rec. 29 (1979) 40; KENG, Gard. Bull. Sing. 40 (1987) 129; — *K. wallichiaefolia* (GRIFF.) H. WENDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2(1907) 217; RIDLEY, Fl. Mal. Pen. 5 (1925) 69.

1965 **Korthalsia rigida** BL.; DRANSFIELD, Kew Bull. 36 (1981) 172; KENG, Gard. Bull. Sing. 40 (1987) 129; — *K. polystachya* MART.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 218; RIDLEY, Fl. Mal. Pen. 5 (1925) 69.

1966 **Korthalsia rostrata** BL.; DRANSFIELD, Kew Bull. 36 (1981) 184; — *K. scaphigera* GRIFF. *ex* MART.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 216; RIDLEY, Fl. Mal. Pen. 5 (1925) 68; DRANSFIELD, Mal. Forest Rec. 29 (1979) 47; KENG, Gard. Bull. Sing. 40 (1987) 129.

1967 **Korthalsia scortechinii** BECC.; RIDLEY, Fl. Mal. Pen. 5 (1925) 68; DRANSFIELD, Mal. Forest Rec. 29 (1979) 50; DRANSFIELD, Kew Bull. 36 (1981) 189; — *K. flagellaris* (*non* MIQ.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176.

1968 **Licuala ferruginea** BECC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 174; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 162; RIDLEY, Fl. Mal. Pen. 5 (1925) 26; KENG, Gard. Bull. Sing. 40 (1987) 130.

1969 **Licuala spinosa** WURMB; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 174; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 160; RIDLEY, Fl. Mal. Pen. 5 (1925) 25; WHITMORE, Palms of Malaya (1977) 70; KENG, Gard. Bull. Sing. 40 (1987) 130.

1970 **Licuala triphylla** GRIFF.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 174; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 163; RIDLEY, Fl. Mal. Pen. 5 (1925) 28; KENG, Gard. Bull. Sing. 40 (1987) 130.

1971 **Myrialepis paradoxa** (KURZ) DRANSFIELD, Kew Bull. 37 (1982) 242; — *M. scortechinii* BECC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176; WHITMORE, Palms of Malaya (1977) 79; DRANSFIELD, Mal. Forest Rec. 29 (1979) 68; KENG, Gard. Bull. Sing. 40 (1987) 130; — *Plectocomiopsis scortechinii* (BECC.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 213; RIDLEY, Fl. Mal. Pen. 5 (1925) 67; — *Plectocomiopsis annulata* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 213; RIDLEY, Fl. Mal. Pen. 5 (1925) 66.

1972 **Nenga pumila** (MART.) WENDL. *var.* **pachystachya** (BL.) E. FERNANDO, Principes 27 (1983) 61; — *N. wendlandiana* SCHEFF.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 173; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 144; RIDLEY, Fl. Mal. Pen. 5 (1925) 12; — *N. pumila*; WHITMORE, Palms of Malaya (1977) 79; KENG, Gard. Bull. Sing. 40 (1987) 130.

1973 **Nypa fruticans** WURMB; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 174; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 158; RIDLEY, Fl. Mal. Pen. 5 (1925) 71 (*"Nipa"*); WHITMORE, Palms of Malaya (1977) 81; KENG, Gard. Bull. Sing. 40 (1987) 131.

1974 **Oncosperma horridum** (GRIFF.) SCHEFF.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 173; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 147; RIDLEY, Fl. Mal. Pen. 5 (1925) 16; WHITMORE, Palms of Malaya (1977) 82; KENG, Gard. Bull. Sing. 40 (1987) 131.

1975 **Oncosperma tigillarium** (JACK) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 173; WHITMORE, Palms of Malaya (1977) 83; KENG, Gard. Bull. Sing. 40 (1987) 131; — *O. filamentosa* BL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 147; RIDLEY, Fl. Mal. Pen. 5 (1925) 16.

1976 **Orania sylvicola** (GRIFF.) H.E. MOORE; WHITMORE, Palms of Malaya (1977) 84; — *O. macrocladus* MART.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 174; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 145; RIDLEY, Fl. Mal. Pen. 5 (1925) 17.

1977 **Pholidocarpus kingianus** (BECC.) RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 167; RIDLEY, Fl. Mal. Pen 5 (1925) 24; DRANSFIELD & Uhl, Kew Bull. 38 (1983) 198; — *Livistona kingiana* BECC, J. Str. Br. R. As. soc. 33 (1900) 174; WHITMORE, Palms of Malaya (1977) 72; KENG, Gard. Bull. Sing. 40 (1987) 130.

1978 **Pinanga disticha** BL. *ex* WENDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 172; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 132; RIDLEY, Fl. Mal. Pen. 5 (1925) 7; WHITMORE, Palms of Malaya (1977) 91; KENG, Gard. Bull. Sing. 40 (1987) 131.

1979 **Pinanga limosa** RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 140; RIDLEY, Fl. Mal. Pen. 5 (1925) 8; WHITMORE, Palms of Malaya (1977) 91; KENG, Gard. Bull. Sing. 40 (1987) 131.

1980 **Pinanga malaiana** (MART.) SCHEFF.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 173; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 142; RIDLEY, Fl. Mal. Pen. 5 (1925) 10; WHITMORE, Palms of Malaya (1977) 91; KENG, Gard. Bull. Sing. 40 (1987) 131.

1981 **Pinanga pectinata** BECC.; WHITMORE, Principes 14 (1970) 125; — *P. singaporensis* RIDL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 144; RIDLEY, Fl. Mal. Pen. 5 (1925) 11; KENG, Gard. Bull. Sing. 40 (1987) 131.

1982 **Pinanga simplicifrons** (MIQ.) BECC.; WHITMORE, Palms of Malaya (1977) 93; KENG, Gard. Bull. Sing. 40 (1987) 131.

1983 **Pinanga subruminata** BECC.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 140; RIDLEY, Fl. Mal. Pen. 5 (1925) 8; WHITMORE, Palms of Malaya (1977) 94; KENG, Gard. Bull. Sing. 40 (1987) 131.

1984 **Plectocomia elongata** MART. *ex* BL.; MADULID, Kalikasan 10 (1981) 45; — *P. griffithii* BECC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 176; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 220; RIDLEY, Fl. Mal. Pen. 5 (1925) 70; WHITMORE, Palms of Malaya (1977) 94; DRANSFIELD, Mal. Forest Rec. 29 (1979) 55; KENG, Gard. Bull. Sing. 40 (1987) 131.

1985 **Rhopaloblaste singaporensis** (Becc.) Hook. *f.*; H.E. Moore, Principes 14 (1970) 88; — *Ptychosperma singaporensis* (Becc.) Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 173; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 148; Ridley, Fl. Mal. Pen. 5 (1925) 18; Whitmore, Palms of Malaya (1977) 97; Keng, Gard. Bull. Sing. 40 (1987) 132.

1986 **Salacca affinis** Griff.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 169; Ridley, Fl. Mal. Pen. 5 (1925) 32 (*"Zalacca"*); Whitmore, Palms of Malaya (1977) 105; Keng, Gard. Bull. Sing. 40 (1987) 132.

PANDANACEAE

1987 **Freycinetia angustifolia** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 172; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 232; Ridley, Fl. Mal. Pen. 5 (1925) 82; Henderson, Mal. Wild Fl. Monoc. (1954) 209; Stone, Gard. Bull. Sing. 25 (1970) 197; — *F. malaccensis* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 233; Ridley, Fl. Mal. Pen. 5 (1925) 83.

1988 **Freycinetia confusa** Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 233; Ridley, Fl. Mal. Pen. 5 (1925) 82; Stone, Gard. Bull. Sing. 25 (1970) 203.

1989 **Freycinetia corneri** B.C. Stone; Stone, Gard. Bull. Sing. 25 (1970) 198.

1990 **Freycinetia javanica** Bl.; Henderson, Mal. Wild Fl. Monoc. (1954) 210; Stone, Gard. Bull. Sing. 25 (1970) 195; — *F. lucens* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 233; Ridley, Fl. Mal. Pen. 5 (1925) 83; — *F. montana* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 234; Ridley, Fl. Mal. Pen. 5 (1925) 83.

1991 **Freycinetia sumatrana** Hemsley; Stone, Gard. Bull. Sing. 25 (1970) 199; — *"F. insignis Bl. ?"*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 172; — *F. valida* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 234; Ridley, Fl. Mal. Pen. 5 (1925) 83; Henderson, Mal. Wild Fl. Monoc. (1954) 209.

1992 **Pandanus affinis** Kurz; Stone, Fed. Mus. J. 23 (1978) 13; — *P. aurantiacus* Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 231; Ridley, Fl. Mal. Pen. 5 (1925) 81.

1993 **Pandanus atrocarpus** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 170; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 230; Ridley, Fl. Mal. Pen. 5 (1925) 80; Stone, Malay. Nat. J. 21 (1968) 135; Stone, Fed. Mus. J. 23 (1978) 26.

1994 **Pandanus houllettii** Carrière; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 171; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 224; Ridley, Fl. Mal. Pen. 5 (1925) 74; Stone, Malay. Nat. J. 21 (1968) 128; Stone, Fed. Mus. J. 28 (1982) 26.

1995 **Pandanus monotheca** Mart.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 228; Ridley, Fl. Mal. Pen. 5 (1925) 79; Stone, Fed. Mus. J. 23 (1978) 26; — *P. ornatus* (Gaud.) Kurz, *nom. illeg.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 171; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 229; Ridley, Fl. Mal. Pen. 5 (1925) 80.

1996 **Pandanus odoratissimus** L. *f.*; Stone, Gard. Bull. Sing. 22 (1967) 236; — *P. fascicularis* Lam.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 171; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 223; Ridley, Fl. Mal. Pen. 5 (1925) 73.

1997 **Pandanus parvus** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 171; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 227; Ridley, Fl. Mal. Pen. 5 (1925) 78; Stone, Malay. Nat. J. 21 (1968) 136; Stone, Fed. Mus. J. 23 (1978) 39.

1998 **Pandanus polycephalus** Lamk.; Stone, Fed. Mus. J. 28 (1983) 115.

1999 **Pandanus rostratus** Martelli; Stone, Sandakania 2 (1993) 49; — *P. corneri* Kanehira; Stone, Malay. Nat J. 21 (1968)14.

2000 **Pandanus tetrodon** Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 75; Stone, Fed. Mus. J. 28 (1982) 83.

2001 **Pandanus yvanii** Solms.; Stone, Malay. Nat. J. 21 (1968) 132; — *P. militaris* Warb.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 227; Ridley, Fl. Mal. Pen. 5 (1925) 78.

PASSIFLORACEAE

2002 **Adenia macrophylla** (Bl.) Koord. *var.* **singaporeana** (Wall. *ex* G. Don) de Wilde; de Wilde, Fl. Males. I 7^2 (1972) 429; Keng, Conc. Fl. Sing. (1990) 42; — *Modecca singaporeana* (Wall. *ex* & Don) Mast.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; — *A. singaporeana* (Wall. *ex* & Don) Engl.; Ridley, Fl. Mal. Pen. 1 (1922) 841; Burkill, Dict. (1935) 48.

A 2003 **Passiflora foetida** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; Ridley, Fl. Mal. Pen. 1 (1922) 839; Henderson, Mal. Wild Fl. Dic. (1959) 151; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 42.

A 2004 **Passiflora laurifolia** L.; Ridley, Fl. Mal. Pen. 1 (1922) 840; Henderson, Mal. Wild Fl. Dic. (1959) 152; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 42.

A 2005 **Passiflora suberosa** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87; Ridley, Fl. Mal. Pen. 1 (1922) 840; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 43; — *P. minima* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 87.

PEDALIACEAE

A 2006 **Sesamum orientale** L.; Burkill, Dict. (1935) 1994; Henderson, Mal. Wild Fl. Dic. (1959) 363; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 185; — *S. indicum* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 120; Ridley, Fl. Mal. Pen. 2 (1923) 553; Backer, Fl. Males. I 4^3 (1951) 217.

A 2007 **Sesamum radiatum** Schum.; Backer, Fl. Males. I 4^3 (1951) 218; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 131.

PENTAPHRAGMATACEAE

2008 **Pentaphragma ellipticum** Poulsen; Kiew, Malay. Nat. J. 43 (1989) 6; — *P. begoniifolium* [*non* (Roxb. *ex* Jack) Wall. *ex* G. Don] Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 103 (*"begoniaefolium"*); — *P. scortechinii auct., non* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 203 (Singapore specimens); — *P. ridleyi* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 202; Keng, Conc. Fl. Sing. (1990) 165; — *P. horsfieldii sensu* Keng, *non* (Miq.) Airy Shaw; Keng, Conc. Fl. Sing. (1990) 165; — *P.* x *ellipticum* Poulsen; Airy Shaw, Fl. Males. I 4^4 (1953) 527.

PHILYDRACEAE

2009 **Philydrum lanuginosum** Banks & Sol. *ex* Gaertn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 169; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 110; Ridley, Fl. Mal. Pen. 4 (1924) 347; Skottsberg, Fl. Males. I 4^1 (1948) 5; Henderson, Mal. Wild Fl. Monoc. (1954) 192; Keng, Gard. Bull. Sing. 39 (1986) 123.

PHYTOLACCACEAE

A 2010 **Rivina humilis** L.; Burkill, Dict. (1935) 1913; Backer, Fl. Males. I 4^3 (1951) 229; Keng, Conc. Fl. Sing. (1990) 59.

PIPERACEAE

A 2011 **Peperomia pellucida** (L.) H.B.K.; Ridley, Fl. Mal. Pen. 3 (1924) 27; Henderson, Mal. Wild Fl. Dic. (1959) 436; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 62; — *P. exigua* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 128.

2012 **Piper caninum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 38; Henderson, Mal. Wild Fl. Dic. (1959) 442; Keng, Conc. Fl. Sing. (1990) 62.

2013 **Piper chaba** Hunter; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 40; Keng, Conc. Fl. Sing. (1990) 62.

2014 **Piper flavimarginatum** C. DC.; Ridley, Fl. Mal. Pen. 3 (1924) 31; Keng, Conc. Fl. Sing. (1990) 62.

2015 **Piper lanatum** Roxb.; Ridley, Fl. Mal. Pen. 3 (1924) 38; Keng, Conc. Fl. Sing. (1990) 62.

2016 **Piper maingayi** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 31; Keng, Conc. Fl. Sing. (1990) 62.

2017 **Piper malaccense** C. DC.; Ridley, Fl. Mal. Pen. 3 (1924) 33; Maxwell, Gard. Bull. Sing. 35 (1983) 197.

2018 **Piper miniatum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 39; Henderson, Mal. Wild Fl. Dic. (1959) 440; Keng, Conc. Fl. Sing. (1990) 62.

2019 **Piper muricatum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 32; Henderson, Mal. Wild Fl. Dic. (1959) 441; Keng, Conc. Fl. Sing. (1990) 62.

2020 **Piper pachyphyllum** Hook. *f.*; Ridley, Fl. Mal. Pen. 3 (1924) 31; Keng, Conc. Fl. Sing. (1990) 62.

2021 **Piper pedicellosum** Wall. *ex* C. DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 34; Maxwell, Gard. Bull. Sing. 35 (1983) 197); Keng, Conc. Fl. Sing. (1990) 62.

2022 **Piper porphyrophyllum** N.E. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 128; Ridley, Fl. Mal. Pen. 3 (1924) 45; Keng, Conc. Fl. Sing. (1990) 62.

2023 **Piper protractum** C. DC.; Ridley, Fl. Mal. Pen. 3 (1924) 33; Keng, Conc. Fl. Sing. (1990) 63.

2024 **Piper ribesioides** Wall.; Ridley, Fl. Mal. Pen. 3 (1924) 34; Henderson, Mal. Wild Fl. Dic. (1959) 442; Keng, Conc. Fl. Sing. (1990) 63; — *P. sumatranum* C. DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127.

2025 **Piper sarmentosum** Roxb. *ex* Hunter; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 127; Ridley, Fl. Mal. Pen. 3 (1924) 40; Keng, Conc. Fl. Sing. (1990) 63.

PITTOSPORACEAE

2026 **Pittosporum ferrugineum** Ait.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 44; Ridley, Fl. Mal. Pen. 1 (1922) 136; Burkill, Dict. (1935) 1763; EJHC2 517; Bakker & van Steenis, Fl. Males. I 5^3 (1957) 355; Whitmore, Tree Fl. Malaya 2 (1973) 310; Corner, Ways. Trees, 3rd ed. (1988) 607; Keng, Conc. Fl. Sing. (1990) 26.

PLANTAGINACEAE

2027 **Plantago major** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 125; Henderson, Mal. Wild Fl. Dic. (1959) 268; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 140; — *P. asiatica* Michx.; Ridley, Fl. Mal. Pen. 2 (1923) 225.

PLUMBAGINACEAE

2028 **Plumbago zeylanica** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 103; Ridley, Fl. Mal. Pen. 2 (1923) 225; van Steenis, Fl. Males. I 4^2 (1949) 109; Henderson, Mal. Wild Fl. Dic. (1959) 266; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 139.

POLYGALACEAE

2029 **Polygala glaucoides** L.; van der Meijden, Fl. Males. I 10^3 (1988) 480; — *P. brachystachya* (*non* DC.) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 44; Ridley, Fl. Mal. Pen. 1 (1922) 139; Henderson, Mal. Wild Fl. Dic. (1959) 31; Keng, Conc. Fl. Sing. (1990) 103.

A 2030 **Polygala paniculata** L.; SINCLAIR, Gard. Bull. Sing. 14 (1953) 31; CORLETT, J. Biogeog. (1988) 662; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 475; KENG, Conc. Fl. Sing. (1990) 103.

2031 **Salomonia cantoniensis** LOUR.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; RIDLEY, Fl. Mal. Pen. 1 (1922) 139; HENDERSON, Mal. Wild Fl. Dic. (1959) 28; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 487; KENG, Conc. Fl. Sing. (1990) 103.

2032 **Xanthophyllum affine** KORTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; RIDLEY, Fl. Mal. Pen. 1 (1922) 143, *p.p.*; BURKILL, Dict. (1935) 2268; *p.p.*; NG, Tree Fl. Malaya 1 (1972) 354, *p.p.*; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 487; KENG, Conc. Fl. Sing. (1990) 104.

2033 **Xanthophyllum discolor** CHODAT; RIDLEY, Fl. Mal. Pen. 1 (1922) 147; BURKILL, Dict. (1935) 2268; NG, Tree Fl. Malaya 1 (1972) 356; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 520; KENG, Conc. Fl. Sing. (1990) 104.

2034 **Xanthophyllum ellipticum** KORTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; NG, Tree Fl. Malaya 1 (1972) 357; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 530; KENG, Conc. Fl. Sing. (1990) 104; — *X. kingii* CHODAT; RIDLEY, Fl. Mal. Pen. 1 (1922) 143; BURKILL, Dict. (1935) 2268.

2035 **Xanthophyllum eurhynchum** MIQ.; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 524 (*ssp. maingayi* (HOOK. *f. ex* BENN.) MEIJDEN); — *X. palembanicum* (*non* MIQ.) KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; RIDLEY, Fl. Mal. Pen. 1 (1922) 149; BURKILL, Dict. (1935) 2269; — *X. verrucosum* CHODAT; RIDLEY, Fl. Mal. Pen. 1 (1922) 147; — *X. maingayi* HOOK. *f. ex* BENN.; NG, Tree Fl. Malaya 1 (1972) 360; KENG, Conc. Fl. Sing. (1990) 104.

2036 **Xanthophyllum griffithii** HOOK. *f. ex* BENN. *ssp.* **erectum** MEIJDEN; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 514; — *X. griffithii* HOOK. *f. ex* BENN.; RIDLEY, Fl. Mal. Pen. 1 (1922) 149, *p.p.*; BURKILL, Dict. (1935) 2269, *p.p.*; NG; Tree Fl. Malaya 1 (1972) 357, *var. griffithii only.*

2037 **Xanthophyllum obscurum** BENN.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; RIDLEY, Fl. Mal. Pen. 1 (1922) 144; NG, Tree Fl. Malaya 1 (1972) 361; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 536; KENG, Conc. Fl. Sing. (1990) 104; — *X. scortechinii* KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 143; BURKILL, Dict. (1935) 2268; NG, Tree Fl. Malaya 1 (1972) 363.

2038 **Xanthophyllum stipitatum** BENN.; RIDLEY, Fl. Mal. Pen. 1 (1922) 145; BURKILL, Dict. (1935) 2268; NG, Tree Fl. Malaya 1 (1972) 363; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 535; KENG, Conc. Fl. Sing. (1990) 104.

2039 **Xanthophyllum vitellinum** (BL.) DIETR.; VAN DER MEIJDEN, Fl. Males. I 10^3 (1988) 514; — *X. kunstleri* KING; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 45; BURKILL, Dict. (1935) 2268; NG, Tree Fl. Malaya 1 (1972) 359; — *X. curtisii* KING; RIDLEY, Fl. Mal. Pen. 1 (1922) 146; — *X. griffithii var. curtisii* (KING) NG; NG, Tree Fl. Malaya 1 (1972) 359.

2040 **Xanthophyllum wrayi** King; Ridley, Fl. Mal. Pen. 1 (1922) 148; Burkill, Dict. (1935) 2268; Ng, Tree Fl. Malaya 1 (1972) 363; van der Meijden, Fl. Males. I 10^3 (1988) 514.

POLYGONACEAE

2041 **Polygonum barbatum** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 126; Ridley, Fl. Mal. Pen. 3 (1924) 11; Henderson, Mal. Wild Fl. Dic. (1959) 419; Keng, Conc. Fl. Sing. (1990) 61.

A 2042 **Polygonum chinense** L.; Ridley, Fl. Mal. Pen. 3 (1924) 12; Henderson, Mal. Wild Fl. Dic. (1959) 419; Sinclair, Gard. Bull. Sing. 14 (1953) 35; Keng, Conc. Fl. Sing. (1990) 61.

A 2043 **Polygonum orientale** L.; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 131.

PONTEDERIACEAE

A 2044 **Eichhornia crassipes** (Mart.) Solms.; Burkill, Dict. (1935) 891; Backer, Fl. Males. I 4^3 (1951) 259; Henderson, Mal. Wild Fl. Monoc. (1954) 190; Keng, Gard. Bull. Sing. 40 (1987) 122; Corlett, J. Biogeog. (1988) 663.

2045 **Monochoria hastata** (L.) Solms.; Burkill, Dict. (1935) 1489; Backer, Fl. Males. I 4^3 (1951) 258; Henderson, Mal. Wild Fl. Monoc. (1954) 189; Keng, Gard. Bull. Sing. 40 (1987) 122; — *M. hastaefolia* Presl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 169; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 109; Ridley, Fl. Mal. Pen. 4 (1924) 344.

2046 **Monochoria vaginalis** (Burm. *f.*) Presl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 169; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 109; Ridley, Fl. Mal. Pen. 4 (1924) 346; Burkill, Dict. (1935) 1489; Backer, Fl. Males. I 4^3 (1951) 256; Henderson, Mal. Wild Fl. Monoc. (1954) 189; Keng, Gard. Bull. Sing. 40 (1987) 122.

PORTULACACEAE

A 2047 **Portulaca oleracea** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 45; Ridley, Fl. Mal. Pen. 1 (1922) 151; Henderson, Mal. Wild Fl. Dic. (1959) 33; Geesink, Fl. Males. I 7^1 (1971) 129; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 60.

A 2048 **Portulaca pilosa** L.; Henderson, Mal. Wild Fl. Dic. (1959) 33; Sinclair, Gard. Bull. Sing. 14 (1953) 31; Geesink, Fl. Males. I 7^1 (1971) 131; Corlett, J. Biogeog. (1988) 662.

A 2049 **Portulaca quadrifida** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 46; Ridley, Fl. Mal. Pen. 1 (1922) 151; Henderson, Mal. Wild Fl. Dic. (1959) 34; Geesink, Fl. Males. I 7^1 (1971) 127; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 60.

A 2050 **Talinum paniculatum** (Jacq.) Gaertn.; Geesink, Fl. Males. I 7^1 (1971) 124; Keng, Conc. Fl. Sing. (1990) 60; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 131.

PROTEACEAE

2051 **Helicia excelsa** (Roxb.) Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 143 (*incl. vars.*); Burkill, Dict. (1935) 1133; Sleumer, Fl. Males. 5(2) 174; Kochummen, Tree Fl. Malaya 2 (1973) 315; Keng, Conc. Fl. Sing. (1990) 61.

2052 **Helicia petiolaris** Benn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 141; Burkill, Dict. (1935) 1134; Sleumer, Fl. Males. 5(2) 188; Kochummen, Tree Fl. Malaya 2 (1973) 315; Keng, Conc. Fl. Sing. (1990) 62.

2053 **Helicia robusta** (Roxb.) R. Br. *ex* Wall.; Ridley, Fl. Mal. Pen. 3 (1924) 142; Sleumer, Fl. Males. 5(2) 184; Kochummen, Tree Fl. Malaya 2 (1973) 315; Keng, Conc. Fl. Sing. (1990) 62; — *H. javanica* Bl.; Burkill, Dict. (1935) 1133.

RHAMNACEAE

2054 **Colubrina asiatica** L. *ex* Brongn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 465; Latiff, Tree Fl. Malaya 4 (1989) 298; Keng, Conc. Fl. Sing. (1990) 116.

2055 **Smythea lanceata** Summerh.; Keng, Conc. Fl. Sing. (1990) 116; — *S. reticulata* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; — *S. pacifica* Seem.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 87; Ridley, Fl. Mal. Pen. 1 (1922) 468.

2056 **Ventilago malaccensis** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 46; Keng, Conc. Fl. Sing. (1990) 116; — *V. leiocarpa* Laws.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 63.

2057 **Ziziphus calophylla** Wall. *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 63; Ridley, Fl. Mal. Pen. 1 (1922) 463; Latiff, Tree Fl. Malaya 4 (1989) 300; Keng, Conc. Fl. Sing. (1990) 116.

2058 **Ziziphus elegans** Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 63; Ridley, Fl. Mal. Pen. 1 (1922) 463; Latiff, Tree Fl. Malaya 4 (1989) 300.

2059 **Ziziphus horsfieldii** Miq.; Ridley, J. Str. Br. R. As. Soc. 34 (1900) 63; Ridley, Fl. Mal. Pen. 1 (1922) 463; Latiff, Tree Fl. Malaya 4 (1989) 300.

2060 **Ziziphus oenoplia** Mill.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 63; Ridley, Fl. Mal. Pen. 1 (1922) 462; Corner, Ways. Trees, 3rd ed. (1988) 610; Latiff, Tree Fl. Malaya 4 (1989) 300; Keng, Conc. Fl. Sing. (1990) 117.

RHIZOPHORACEAE

2061 **Anisophyllea disticha** (Jack) Baill.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 701; Corner, Ways. Trees 1st ed. (1940) 122; Ding Hou; Fl. Males. I 5^4 (1958) 479; Corner, Ways. Trees, 3rd ed. (1988) 132; Kochummen, Tree Fl. Malaya 4 (1989) 307; Keng, Conc. Fl. Sing. (1990) 73.

2062 **Anisophyllea griffithii** Oliv.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 702; Corner, Ways. Trees 1st ed. (1940) 124; Ding Hou; Fl. Males. I 5^4 (1958) 476; Corner, Ways. Trees, 3rd ed. (1988) 134; Kochummen, Tree Fl. Malaya 4 (1989) 307; Keng, Conc. Fl. Sing. (1990) 73.

2063 **Bruguiera cylindrica** (L.) Bl.; Ding Hou, Fl. Males. I 5^4 (1958) 467; Kochummen, Tree Fl. Malaya 4 (1989) 310; Keng, Conc. Fl. Sing. (1990) 73; — *B. caryophylloides* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 695; Watson, Mal. For. Rec. 6 (1928) 43.

2064 **Bruguiera gymnorrhiza** (L.) Lamk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 695; Watson, Mal. For. Rec. 6 (1928) 42; Ding Hou, Fl. Males. I 5^4 (1958) 461; Kochummen, Tree Fl. Malaya 4 (1989) 310; Keng, Conc. Fl. Sing. (1990) 74.

2065 **Bruguiera parviflora** (Roxb.) W. & A. *ex* Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 695; Watson, Mal. For. Rec. 6 (1928) 111; Ding Hou, Fl. Males. I 5^4 (1958) 464; Kochummen, Tree Fl. Malaya 4 (1989) 310; Keng, Conc. Fl. Sing. (1990) 74.

2066 **Bruguiera sexangula** (Lour.) Poir.; Ding Hou, Fl. Males. I 5^4 (1958) 463; Kochummen, Tree Fl. Malaya 4 (1989) 312; Keng, Conc. Fl. Sing. (1990) 74; — *B. eriopetala* W. & A. *ex* Arn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 695; Watson, Mal. For. Rec. 6 (1928) 109.

2067 **Carallia brachiata** (Lour.) Merr.; Ding Hou, Fl. Males. I 5^4 (1958) 485; Kochummen, Corner, Ways. Trees, 3rd ed. (1988) 612; Tree Fl. Malaya 4 (1989) 313; Keng, Conc. Fl. Sing. (1990) 74; — *C. scortechinii* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 697; — *C. integerrima* DC.; Ridley, Fl. Mal. Pen. 1 (1922) 696; — *C. spinulosa* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 698; — *C. lucida* Roxb.; Corner, Ways. Trees 1st ed. (1940) 522.

2068 **Ceriops tagal** (Pers.) C.B. Robins; Ding Hou; Fl. Males. I 5^4 (1958) 469; Kochummen, Tree Fl. Malaya 4 (1989) 316; Keng, Conc. Fl. Sing. (1990) 74; — *C. candolliana* Arn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 694; Watson, Mal. For. Rec. 6 (1928) 46.

2069 **Gynotroches axillaris** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 698; Corner, Ways. Trees 1st ed. (1940) 522; Ding Hou; Fl. Males. I 5^4 (1958) 488; Corner, Ways. Trees, 3rd ed. (1988) 613; Kochummen, Tree Fl. Malaya 4 (1989) 317; Keng, Conc. Fl. Sing. (1990) 74.

2070 **Kandelia candel** (L.) Druce; Ding Hou; Fl. Males. I 5^4 (1958) 473; Kochummen, Tree Fl. Malaya 4 (1989) 319; Keng, Conc. Fl. Sing. (1990) 74; — *K. rheedei* W. &. A.; Ridley, Fl. Mal. Pen. 1 (1922) 694; Watson, Mal. For. Rec. 6 (1928) 49.

2071 **Pellacalyx axillaris** Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 699; Corner, Ways. Trees 1st ed. (1940) 523; Ding Hou; Fl. Males. I 5^4 (1958) 493; Corner, Ways. Trees, 3rd ed. (1988) 614; Kochummen, Tree Fl. Malaya 4 (1989) 320; Keng, Conc. Fl. Sing. (1990) 74.

2072 **Pellacalyx saccardianus** Scort.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 79; Ridley, Fl. Mal. Pen. 1 (1922) 699; Corner, Ways. Trees 1st ed. (1940) 524; Ding Hou; Fl. Males. I 5^4 (1958) 491; Corner, Ways. Trees, 3rd ed. (1988) 615; Kochummen, Tree Fl. Malaya 4 (1989) 320; Keng, Conc. Fl. Sing. (1990) 74.

2073 **Rhizophora apiculata** Bl.; Ding Hou; Fl. Males. I 5^4 (1958) 452; Kochummen, Tree Fl. Malaya 4 (1989) 322; Keng, Conc. Fl. Sing. (1990) 74; — *R. conjugata* (*non* L.) Arn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 693; Watson, Mal. For. Rec. 6 (1928) 27.

2074 **Rhizophora mucronata** Lam.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 693; Watson, Mal. For. Rec. 6 (1928) 27; Ding Hou; Fl. Males. I 5^4 (1958) 453; Kochummen, Tree Fl. Malaya 4 (1989) 322; Keng, Conc. Fl. Sing. (1990) 74.

2075 **Rhizophora stylosa** Griff.; Ridley, Fl. Mal. Pen. 1 (1922) 693; Ding Hou; Fl. Males. I 5^4 (1958) 456; Kochummen, Tree Fl. Malaya 4 (1989) 323; Keng, Conc. Fl. Sing. (1990) 74.

ROSACEAE

A 2076 **Duchesnea indica** (Andrews) Focke; Keng, Conc. Fl. Sing. (1990) 27; — *Fragaria indica* Andr.; Sinclair, Gard. Bull. Sing. 14 (1953) 39.

2077 **Prunus arborea** (Bl.) Kalkm.; Prance & Whitmore, Tree Fl. Malaya 2 (1973) 338; Corner, Ways. Trees, 3rd ed. (1988) 619; Keng, Conc. Fl. Sing. (1990) 27; — *Pygeum persimile* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 675; — *Pygeum ovalifolium* King; Ridley, Fl. Mal. Pen. 1 (1922) 677; — *Pygeum patens* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 676; — *Pygeum rubiginosum* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 677; — *Pygeum parviflorum* T. & B.; Ridley, Fl. Mal. Pen. 1 (1922) 675; Corner, Ways. Trees 1st ed. (1940) 529.

2078 **Prunus grisea** (C. Muell.) Kalkm.; Prance & Whitmore, Tree Fl. Malaya 2 (1973) 337; Keng, Conc. Fl. Sing. (1990) 27; — *Pygeum lanceolatum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 674 (*incl. var. maingayi*); Sinclair, Gard. Bull. Sing. 15 (1956) 23; — *Pygeum maingayi* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78.

2079 **Prunus polystachya** (Hook. *f.*) Kalkm.; Prance & Whitmore, Tree Fl. Malaya 2 (1973) 339; Corner, Ways. Trees, 3rd ed. (1988) 619; Keng, Conc. Fl. Sing. (1990) 27; — *Pygeum polystachyum* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 674; Corner, Ways. Trees 1st ed. (1940) 528.

2080a **Rubus moluccanus** L. *var.* **moluccanus**; Kalkman, Blumea 29 (1984) 356; — *R. glomeratus auct., non* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 679; Henderson, Mal. Wild Fl. Dic. (1959) 105; Keng, Conc. Fl. Sing. (1990) 28.

2080b **Rubus moluccanus** *var.* **angulosus** KALKMAN, Blumea 29 (1984) 364; — *R. moluccanus*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 78; HENDERSON, Mal. Wild Fl. Dic. (1959) 105; KENG, Conc. Fl. Sing. (1990) 28; — *R. angulosus* (*non* GREMLI) FOCKE; RIDLEY, Fl. Mal. Pen. 1 (1922) 678.

RUBIACEAE

2081 **Aidia corymbosa** (BL.) K.M. WONG, Malay. Nat. J. 38 (1984) 19; — *Randia auriculata* (WALL.) SCHUM.; RIDLEY, Fl. Mal. Pen. 2 (1923) 75; KENG, Conc. Fl. Sing. (1990) 160.

2082 **Aidia wallichiana** TIRV.; WONG, Tree Fl. Malaya 4 (1989) 338; — *Randia densiflora* (WALL.) BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; RIDLEY, Fl. Mal. Pen. 2 (1923) 75; CORNER, Ways. Trees 1st ed. (1940) 555; CORNER, Ways. Trees, 3rd ed. (1988) 647; — *Aidia cochinchinensis sensu* WONG *pro parte non* LOUR., Malay. Nat. J. 38 (1984) 10; — *Randia cochinchinensis* (LOUR.) MERR.; KENG, Conc. Fl. Sing. (1990) 160.

A 2083 **Borreria alata** (AUBL.) DC.; CORLETT, J. Biogeog. (1988) 662; KENG, Conc. Fl. Sing. (1990) 152; — *B. latifolia* K. SCHUM.; RIDLEY, Fl. Mal. Pen. 2 (1923) 175; HENDERSON, Mal. Wild Fl. Dic. (1959) 229.

2084 **Borreria articularis** (L. *f.*) F.N. WILL.; KENG, Conc. Fl. Sing. (1990) 152; — *Spermacoce hispida* L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 100; — *B. hispida* K. SCHUM.; RIDLEY, Fl. Mal. Pen. 2 (1923) 175; HENDERSON, Mal. Wild Fl. Dic. (1959) 229.

2085 **Borreria laevicaulis** (MIQ.) RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 176; HENDERSON, Mal. Wild Fl. Dic. (1959) 229; KENG, Conc. Fl. Sing. (1990) 152.

A 2086 **Borreria laevis** (LAMK.) GRISEB.; CORLETT, J. Biogeog. (1988) 662; KENG, Conc. Fl. Sing. (1990) 152.

A 2087 **Borreria ocymoides** (BURM. *f.*) DC.; KENG, Conc. Fl. Sing. (1990) 152.

2088 **Borreria setidens** (MIQ.) BOLD.; RIDLEY, Fl. Mal. Pen. 1 (1922) 177; HENDERSON, Mal. Wild Fl. Dic. (1959) 229; KENG, Conc. Fl. Sing. (1990) 152.

2089 **Caelospermum truncatum** (WALL.) BAILL. *ex* K. SCHUM.; RIDLEY, Fl. Mal. Pen. 2 (1923) 121 JOHANSSON, Blumea 33 (1988) 277; — *C. scandens* BL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 121; KENG, Conc. Fl. Sing. (1990) 153.

2090 **Canthium confertum** KORTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 96; RIDLEY, Fl. Mal. Pen. 2 (1923) 125; CORNER, Ways. Trees, 3rd ed. (1988) 626; WONG, Tree Fl. Malaya 4 (1989) 342; KENG, Conc. Fl. Sing. (1990) 152.

2091 **Canthium glabrum** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 96; RIDLEY, Fl. Mal. Pen. 2 (1923) 124; CORNER, Ways. Trees, 3rd ed. (1988) 627; WONG, Tree Fl. Malaya 4 (1989) 343; KENG, Conc. Fl. Sing. (1990) 152.

2092 **Canthium horridum** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 96; RIDLEY, Fl. Mal. Pen. 2 (1923) 123; WONG, Tree Fl. Malaya 4 (1989) 341; KENG, Conc. Fl. Sing. (1990) 152; — *C. scandens* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 96.

2093 **Canthium molle** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 123; Wong, Tree Fl. Malaya 4 (1989) 341; Keng, Conc. Fl. Sing. (1990) 152.

2094 **Cephaelis singaporensis** Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 144; Keng, Conc. Fl. Sing. (1990) 152.

2095 **Chasalia chartacea** Craib; Henderson, Mal. Wild Fl. Dic. (1959) 223; Corner, Ways. Trees, 3rd ed. (1988) 627; Wong, Tree Fl. Malaya 4 (1989) 344.

2096 **Chasalia curviflora** (Wall.) Thw.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 142; Wong, Tree Fl. Malaya 4 (1989) 344; Keng, Conc. Fl. Sing. (1990) 152.

2097 **Chasalia pubescens** Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 143; Wong, Tree Fl. Malaya 4 (1989) 344; Keng, Conc. Fl. Sing. (1990) 153.

2098 **Coptosapelta griffithii** Hook. *f.*; Ridley, Fl. Mal. Pen. 2 (1923) 17; Henderson, Mal. Wild Fl. Dic. (1959) 196; Keng, Conc. Fl. Sing. (1990) 153.

2099 **Coptosapelta parviflora** Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 18; Keng, Conc. Fl. Sing. (1990) 153.

2100 **Coptosapelta tomentosa** (Bl.) Val. *ex* K. Heyne; Henderson, Mal. Wild Fl. Dic. (1959) 195; Keng, Conc. Fl. Sing. (1990) 153; — *C. flavescens* Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 91; Ridley, Fl. Mal. Pen. 2 (1923) 17.

2101 **Dentella repens** (L.) J.R. & G. Forst.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 44; Keng, Conc. Fl. Sing. (1990) 153.

A 2102 **Diodia ocymifolia** (Willd. *ex* R. & S.) Bremek.; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 153.

A 2103 **Diodia sarmentosa** Swartz; Ridley, Fl. Mal. Pen. 2 (1923) 174; Henderson, Mal. Wild Fl. Dic. (1959) 228; Corlett, J. Biogeog. (1988) 662; Keng, Conc. Fl. Sing. (1990) 153; — *Spermacoce scaberrima* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 100.

2104 **Diplospora malaccensis** Hook. *f.*; Ridley, Fl. Mal. Pen. 2 (1923) 86; Corner, Ways. Trees, 3rd ed. (1988) 629; Wong, Tree Fl. Malaya 4 (1989) 346; Keng, Conc. Fl. Sing. (1990) 153.

2105 **Gaertnera grisea** Hook. *f. ex* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 115; Ridley, Fl. Mal. Pen. 2 (1923) 431; van Beusekom, Blumea 15 (1967) 373; Wong, Tree Fl. Malaya 4 (1989) 347; Keng, Conc. Fl. Sing. (1990) 153.

2106 **Gaertnera obesa** Hook. *f. ex* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 115; Ridley, Fl. Mal. Pen. 2 (1923) 431; van Beusekom, Blumea 15 (1967) 381; Wong, Tree Fl. Malaya 4 (1989) 347; Keng, Conc. Fl. Sing. (1990) 154.

2107 **Gaertnera vaginans** (DC.) MERR. *ssp* **junghuhnii** (MIQ.) VAN BEUSEKOM, Blumea 15 (1967) 388; WONG, Tree Fl. Malaya 4 (1989) 348; — *G. koenigii* (ARN.) WIGHT *var. oxyphylla* (BENTH.) CLARKE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 115; — *G. acuminata* BENTH.; RIDLEY, Fl. Mal. Pen. 2 (1923) 427 (*incl. var. oxyphylla* RIDL. & *var. montana* RIDL.); — *G. caudata* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 429; — *G. ramosa* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 429; — *G. pedicellata* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 429; — *G. sessiliflora* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 427.

2108 **Gaertnera viminea** HOOK.*f. ex* CLARKE; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 115; RIDLEY, Fl. Mal. Pen. 2 (1923) 427; VAN BEUSEKOM, Blumea 15 (1967) 377; WONG, Tree Fl. Malaya 4 (1989) 348; KENG, Conc. Fl. Sing. (1990) 154.

2109 **Gardenia griffithii** HOOK.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 83; CORNER, Ways. Trees, 3rd ed. (1988) 631; WONG, Tree Fl. Malaya 4 (1989) 349; KENG, Conc. Fl. Sing. (1990) 154.

2110 **Gardenia tubifera** WALL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 82; CORNER, Ways. Trees, 3rd ed. (1988) 631; WONG, Tree Fl. Malaya 4 (1989) 349; KENG, Conc. Fl. Sing. (1990) 154; — *G. speciosa* [*non* SALISB.] (HOOK.) HOOK.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 83; — *G. resinifera* KORTH.; RIDLEY, Fl. Mal. Pen. 2 (1923) 82.

WONG Gard. Bull. Sing. 35 (1982) 22 & Tree Fl. Malaya 4 (1989) 350) recognises *var. subcarinata* CORNER and *var. tubifera forma tubifera* and *var. tubifera forma elata* (RIDL.) WONG, all of which are recorded from Singapore.

2111 **Gardeniopsis longifolia** MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; RIDLEY, Fl. Mal. Pen. 2 (1923) 112; WONG, Tree Fl. Malaya 4 (1989) 350; KENG, Conc. Fl. Sing. (1990) 154.

2112 **Geophila pilosa** PEARS.; RIDLEY, J. Str. Br. R. As. Soc. 35 (1901) 88; RIDLEY, Fl. Mal. Pen. 2 (1923) 146; KENG, Conc. Fl. Sing. (1990) 154; — *G. hirta* (*non* MIQ.) RIDL., J. Str. Br. R. As. Soc. 33 (1900) 99.

2113 **Guettarda speciosa** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 112; CORNER, Ways. Trees 1st ed. (1940) 542; WONG, Kew Bull. 43 (1988) 496; CORNER, Ways. Trees, 3rd ed. (1988) 633; WONG, Tree Fl. Malaya 4 (1989) 351; KENG, Conc. Fl. Sing. (1990) 154.

2114 **Gynochthodes coriacea** BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 98; RIDLEY, Fl. Mal. Pen. 2 (1923) 122; KENG, Conc. Fl. Sing. (1990) 154.

2115 **Gynochthodes sublanceolata** MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 97; RIDLEY, Fl. Mal. Pen. 2 (1923) 122; HENDERSON, Mal. Wild Fl. Dic. (1959) 220; KENG, Conc. Fl. Sing. (1990) 155.

2116 **Hedyotis auricularia** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 92; RIDLEY, Fl. Mal. Pen. 2 (1923) 49; KENG, Conc. Fl. Sing. (1990) 155.

2117 **Hedyotis biflora** (L.) Lamk.; Keng, Conc. Fl. Sing. (1990) 155; — *Oldenlandia paniculata* L.; Ridley, Fl. Mal. Pen. 2 (1923) 53; Henderson, Mal. Wild Fl. Dic. (1959) 207.

2118 **Hedyotis capitellata** Wall. *ex* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 46; Keng, Conc. Fl. Sing. (1990) 155.

2119 **Hedyotis caerulea** W. & A.; Ridley, Fl. Mal. Pen. 2 (1923) 52; Sinclair, Gard. Bull. Sing. 14 (1953) 33.

2120 **Hedyotis congesta** R. Br. *ex* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 51; Keng, Conc. Fl. Sing. (1990) 155.

2121 **Hedyotis corymbosa** (L.) Lamk.; Keng, Conc. Fl. Sing. (1990) 155; — *Oldenlandia corymbosa* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 54; Henderson, Mal. Wild Fl. Dic. (1959) 206.

2122 **Hedyotis dichotoma** Koen. *ex* Roth; Keng, Conc. Fl. Sing. (1990) 155; — *Oldenlandia dichotoma* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 53; Henderson, Mal. Wild Fl. Dic. (1959) 207.

2123 **Hedyotis diffusa** Willd.; Keng, Conc. Fl. Sing. (1990) 155; — *Oldenlandia diffusa* (Willd.) Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 54; Henderson, Mal. Wild Fl. Dic. (1959) 206.

2124 **Hedyotis herbacea** L.; Keng, Conc. Fl. Sing. (1990) 155.

2125 **Hedyotis pinifolia** Wall. *ex* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 52; Henderson, Mal. Wild Fl. Dic. (1959) 204; Keng, Conc. Fl. Sing. (1990) 155.

2126 **Hedyotis pumila** L. *f.*; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 131.

2127 **Hedyotis trinervia** (Retz.) R. & S.; Maxwell, Gard. Bull. Sing. 35 (1983) 198; Keng, Conc. Fl. Sing. (1990) 155; — *Oldenlandia trinervia* Retz.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 55.

2128 **Hedyotis vestita** R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 92; Ridley, Fl. Mal. Pen. 2 (1923) 49.

2129 **Hydnophytum formicarium** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 172; Henderson, Mal. Wild Fl. Dic. (1959) 226; Keng, Conc. Fl. Sing. (1990) 155.

2130 **Hypobathrum coniferum** (Ridl.) Bakh. *f.*; Keng, Conc. Fl. Sing. (1990) 156; — *Petunga venulosa* (*non* Hook. *f.*) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 95; — *Petunga conifera* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 85; — *H. sp. 11*, Wong, Tree Fl. Malaya 4 (1989) 355.

2131 **Ixora concinna** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 97; Ridley, Fl. Mal. Pen. 2 (1923) 95; Corner, Ways. Trees, 3rd ed. (1988) 637; Wong, Tree Fl. Malaya 4 (1989) 360.

2132 **Ixora congesta** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 96; Ridley, Fl. Mal. Pen. 2 (1923) 93; Corner, Ways. Trees, 3rd ed. (1988) 637; Wong, Tree Fl. Malaya 4 (1989) 361.

2133 **Ixora grandifolia** Z. & M.; Ridley, Fl. Mal. Pen. 2 (1923) 97; Corner, Ways. Trees, 3rd ed. (1988) 637; Wong, Tree Fl. Malaya 4 (1989) 364; Keng, Conc. Fl. Sing. (1990) 156; —*I. crassifolia* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 98; —*I. elliptica* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 98; —*I. fluminalis* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 97.

2134 **Ixora lobbii** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 93; Corner, Ways. Trees, 3rd ed. (1988) 638; Wong, Tree Fl. Malaya 4 (1989) 361; Keng, Conc. Fl. Sing. (1990) 156; —*I. fulgens* (*non* Roxb.) Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 96.

2135 **Ixora pendula** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 96; Ridley, Fl. Mal. Pen. 2 (1923) 95 (*incl. var. opaca* Ridl.); Corner, Ways. Trees, 3rd ed. (1988) 638; Wong, Tree Fl. Malaya 4 (1989) 359; Keng, Conc. Fl. Sing. (1990) 156; —*I. opaca* Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 96.

2136 **Ixora umbellata** K. & V.; Corner, Ways. Trees, 3rd ed. (1988) 638; Wong, Tree Fl. Malaya 4 (1989) 358; Keng, Conc. Fl. Sing. (1990) 156.

2137 **Jackiopsis ornata** (Wall.) Ridsdale, Blumea 25 (1979) 295; Wong, Tree Fl. Malaya 4 (1989) 364; Keng, Conc. Fl. Sing. (1990) 156; —*Jackia ornata* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 95; Ridley, Fl. Mal. Pen. 2 (1923) 89, Corner, Ways. Trees 1st ed. (1940) 548; Corner, Ways. Trees, 3rd ed. (1988) 639.

2138 **Lasianthus appressus** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 156; Wong, Tree Fl. Malaya 4 (1989) 371; Keng, Conc. Fl. Sing. (1990) 156.

2139 **Lasianthus attenuatus** Jack; Ridley, Fl. Mal. Pen. 2 (1923) 156; Wong, Tree Fl. Malaya 4 (1989) 367; Keng, Conc. Fl. Sing. (1990) 156.

2140 **Lasianthus constrictus** Wight; Ridley, Fl. Mal. Pen. 2 (1923) 163; Wong, Tree Fl. Malaya 4 (1989) 369; Keng, Conc. Fl. Sing. (1990) 157.

2141 **Lasianthus cyanocarpus** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 153; Henderson, Mal. Wild Fl. Dic. (1959) 224; Wong, Tree Fl. Malaya 4 (1989) 370; Keng, Conc. Fl. Sing. (1990) 157.

2142 **Lasianthus densifolius** Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 156 (*incl. var. calycina* King & *var. latifolia* King); Wong, Tree Fl. Malaya 4 (1989) 368.

2143 **Lasianthus ellipticus** Wight; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 159; Wong, Tree Fl. Malaya 4 (1989) 372; Keng, Conc. Fl. Sing. (1990) 157.

2144 **Lasianthus glaber** Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 155; Wong, Tree Fl. Malaya 4 (1989) 373.

2145 **Lasianthus griffithii** Wight; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 152 (*incl. var. latibracteata* K. & G.); Wong, Tree Fl. Malaya 4 (1989) 371; Keng, Conc. Fl. Sing. (1990) 157.

2146 **Lasianthus maingayi** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 160; Wong, Tree Fl. Malaya 4 (1989) 369; Keng, Conc. Fl. Sing. (1990) 157.

2147 **Lasianthus perakensis** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 160; Wong, Tree Fl. Malaya 4 (1989) 372; — *L. flavinervius* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 162.

2148 **Lasianthus pterospermus** Wight; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 160; Wong, Tree Fl. Malaya 4 (1989) 368; — *L. longifolius sensu* Ridl. *p.p.*; Ridley, Fl. Mal. Pen. 2 (1923) 164.

2149 **Lasianthus ridleyi** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 154; Wong, Tree Fl. Malaya 4 (1989) 371; Keng, Conc. Fl. Sing. (1990) 157; — *L. maingayi var. hirta* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 160; — *L. singaporensis* King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 159; Keng, Conc. Fl. Sing. (1990) 157.

2150 **Lasianthus scabridus** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 152; Wong, Tree Fl. Malaya 4 (1989) 370; Keng, Conc. Fl. Sing. (1990) 157.

2151 **Lasianthus *sp.* 8,** Wong, Tree Fl. Malaya 4 (1989) 373.

2152 **Lasianthus stipularis** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99; Ridley, Fl. Mal. Pen. 2 (1923) 152; Henderson, Mal. Wild Fl. Dic. (1959) 224; Wong, Tree Fl. Malaya 4 (1989) 368; Keng, Conc. Fl. Sing. (1990) 157.

2153 **Lasianthus tomentosus** Bl.; Ridley, Fl. Mal. Pen. 2 (1923) 161; Wong, Tree Fl. Malaya 4 (1989) 371; Keng, Conc. Fl. Sing. (1990) 157; — *L. chryseus* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 158; Keng, Conc. Fl. Sing. (1990) 157.

2154 **Lecananthus erubescens** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 94; Ridley, Fl. Mal. Pen. 2 (1923) 57; Henderson, Mal. Wild Fl. Dic. (1959) 211; Keng, Conc. Fl. Sing. (1990) 157.

2155 **Lucinaea membranacea** King; Ridley, Fl. Mal. Pen. 2 (1923) 56; Henderson, Mal. Wild Fl. Dic. (1959) 209; Keng, Conc. Fl. Sing. (1990) 157.

2156 **Lucinaea morinda** DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 93; Ridley, Fl. Mal. Pen. 2 (1923) 56; Keng, Conc. Fl. Sing. (1990) 157.

A 2157 **Morinda citrifolia** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 97; Ridley, Fl. Mal. Pen. 2 (1923) 117; Corlett, J. Biogeog. (1988) 662; Corner, Ways. Trees, 3rd ed. (1988) 641; Wong, Tree Fl. Malaya 4 (1989) 377; Keng, Conc. Fl. Sing. (1990) 157.

2158 **Morinda ridleyi** (King & Gamble) Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 118; Wong, Tree Fl. Malaya 4 (1989) 377; Keng, Conc. Fl. Sing. (1990) 158; — *M. sp. "A tall climber"*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 97.

2159 **Morinda rigida** Miq.; Ridley, Fl. Mal. Pen. 2 (1923) 118; Wong, Tree Fl. Malaya 4 (1989) 376; Keng, Conc. Fl. Sing. (1990) 158.

2160 **Morinda umbellata** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 97; Ridley, Fl. Mal. Pen. 2 (1923) 119; Henderson, Mal. Wild Fl. Dic. (1959) 219; Wong, Tree Fl. Malaya 4 (1989) 377; Keng, Conc. Fl. Sing. (1990) 158.

2161 **Mussaenda glabra** Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 93; Ridley, Fl. Mal. Pen. 2 (1923) 61; Henderson, Mal. Wild Fl. Dic. (1959) 213; Keng, Conc. Fl. Sing. (1990) 158.

2162 **Mussaenda mutabilis** Hook. *f.*; Ridley, Fl. Mal. Pen. 2 (1923) 58; Henderson, Mal. Wild Fl. Dic. (1959) 212; Keng, Conc. Fl. Sing. (1990) 158.

2163 **Mussaendopsis beccariana** Baill.; Ridley, Fl. Mal. Pen. 2 (1923) 19; Wong, Tree Fl. Malaya 4 (1989) 378; Keng, Conc. Fl. Sing. (1990) 158.

2164 **Mycetia malayana** (Wall. *ex* Ridl.) Craib; Wong, Tree Fl. Malaya 4 (1989) 379; Keng, Conc. Fl. Sing. (1990) 158; — *Adenosacme longifolia* Wall. *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 93; — *Adenosacme malayana* Wall. *ex* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 63.

2165 **Myrmecodia tuberosa** Jack; Ridley, Fl. Mal. Mal. Pen. 2 (1923) 173; Huxley & Jebb, Blumea 37 (1993) 276; — *M. echinata* Gaud.; Ridley, J. Str. Br. R. As. Soc. 33(1900) 100; — *M. armata* DC.; Keng, Conc. Fl. Sing. (1990) 158.

2166 **Nauclea officinalis** (Pierre *ex* Pitard) Merr. & Chun.; Ridsdale, Blumea 24 (1978) 328; Wong, Tree Fl. Malaya 4 (1989) 380; Keng, Conc. Fl. Sing. (1990) 158; — *Sarcocephalus junghuhnii* (*non* Miq.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 90; Ridley, Fl. Mal. Pen. 2 (1923) 7; — *N. junghuhnii auct., non* Merr.; Corner, Ways. Trees 1st ed. (1940) 551; Corner, Ways. Trees, 3rd ed. (1988) 642.

2167 **Nauclea subdita** (Korth.) Steud.; Ridsdale, Blumea 24 (1978) 329; Wong, Tree Fl. Malaya 4 (1989) 381; Keng, Conc. Fl. Sing. (1990) 159; — *Sarcocephalus subditus* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 90; Ridley, Fl. Mal. Pen. 2 (1923) 7.

2168 **Neonauclea pallida** (Reinw. *ex* Havil.) Bakh. *f. ssp.* **malaccensis** (Gand.) Ridsdale, Blumea 34 (1989) 199; — *Nauclea purpurascens* (*non* Korth.) K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 9; — *N. purpurascens* Ridl.; Ridley, Fl. Mal. Pen. 5 (1925) 314, *p.p.*; — *N. pallida*; Wong, Tree Fl. Malaya 4 (1989) 383

2169 **Neonauclea** ***sp.*** **2**, Wong, Tree Fl. Malaya 4 (1989) 383.

2170 **Ochreinauclea maingayi** (Hook. *f.*) Ridsdale, Blumea 24 (1978) 332; Wong, Tree Fl. Malaya 4 (1989) 385; — *Sarcocephalus maingayi* (Hook. *f.*) Havil.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 90; Ridley, Fl. Mal. Pen. 2 (1923) 7.

2171 **Ophiorrhiza singaporensis** Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 39; Henderson, Mal. Wild Fl. Dic. (1959) 209; Keng, Conc. Fl. Sing. (1990) 159; — *O. harrisiana*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 93.

2172 **Oxyceros fragrantissima** (Ridl.) K.M. Wong, Malay. Nat. J. 38 (1984) 43; — *Randia fragrantissima* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 75; Keng, Conc. Fl. Sing. (1990) 160.

2173 **Oxyceros longiflora** (LAMK.) YAMAZAKI; WONG, Malay. Nat. J. 38 (1984) 39; — *Randia longiflora* LAMK.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; RIDLEY, Fl. Mal. Pen. 2 (1923) 73; KENG, Conc. Fl. Sing. (1990) 161.

2174 **Oxyceros penangiana** (KING & GAMBLE) TIRVENG.; WONG, Malay. Nat. J. 38 (1984) 39; — *Randia penangiana* KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 72; KENG, Conc. Fl. Sing. (1990) 161.

2175 **Oxyceros scandens** (BL.) TIRVENG.; WONG, Malay. Nat. J. 38 (1984) 42; — *Randia clarkei* KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 72; — *Randia scandens* (BL.) DC.; KENG, Conc. Fl. Sing. (1990) 161.

2176 **Paederia foetida** L.; RIDLEY, Fl. Mal. Pen. 2 (1923) 173; HENDERSON, Mal. Wild Fl. Doc. (1959) 227; PUFF, Op. Bot. Belg. 3 (1991) 210; — *P. tomentosa* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 100; — *P. scandens* (LOUR) MERR.; KENG, Conc. Fl. Sing. (1990) 159.

2177 **Paederia verticillata** BL.; RIDLEY, J. Str. Br. R. As. Soc. 35 (1901) 89; RIDLEY, Fl. Mal. Pen. 2 (1923) 174; HENDERSON, Mal. Wild Fl. Dic. (1959) 227; KENG, Conc. Fl. Sing. (1990) 159; — *P. foetida sensu* RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 100.

2178 **Pavetta wallichiana** STEUD.; WONG, Tree Fl. Malaya 4 (1989) 388.

2179 **Pertusadina eurhyncha** (MIQ.) RIDSDALE, Blumea 24 (1978) 354; WONG, Tree Fl. Malaya 4 (1989) 391; — *Adina rubescens* HEMSL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 90; RIDLEY, Fl. Mal. Pen. 2 (1923) 10; KENG, Conc. Fl. Sing. (1990) 152.

2180 **Porterandia anisophylla** (JACK *ex* ROXB.) RIDL.; WONG, Malay. Nat. J. 38 (1984) 45; WONG, Tree Fl. Malaya 4 (1989) 393; — *Randia anisophylla* (JACK *ex* ROXB.) HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; RIDLEY, Fl. Mal. Pen. 2 (1923) 77; CORNER, Ways. Trees 1st ed. (1940) 555; CORNER, Ways. Trees, 3rd ed. (1988) 647; KENG, Conc. Fl. Sing. (1990) 160; — *Randia scortechinii* K. & G.; RIDLEY, Fl. Mal. Pen. 2 (1923) 78; CORNER, Ways. Trees 1st ed. (1940) 556; CORNER, Ways. Trees, 3rd ed. (1988) 648.

2181 **Prismatomeris glabra** (KORTH.) VAL.; WONG, Tree Fl. Malaya 4 (1989) 395.

2182 **Prismatomeris tetranda** (ROXB.) K. SCHUM. *subsp.* **malayana** (RIDL.) JOHANSSON; WONG, Tree Fl. Malaya 4 (1989) 396; — *P. albidiflora*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 97; — *P. malayana* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 116; — *P. tetranda*; CORNER, Ways. Trees, 3rd ed. (1988) 645; KENG, Conc. Fl. Sing. (1990) 159.

2183 **Psychotria angulata** KORTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 98; RIDLEY, Fl. Mal. Pen. 2 (1923) 138; HENDERSON, Mal. Wild Fl. Dic. (1959) 222; WONG, Tree Fl. Malaya 4 (1989) 398; KENG, Conc. Fl. Sing. (1990) 159.

2184 **Psychotria cantleyi** RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 130; KENG, Conc. Fl. Sing. (1990) 159.

2185 **Psychotria griffithii** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 137; Wong, Tree Fl. Malaya 4 (1989) 399; Keng, Conc. Fl. Sing. (1990) 159.

2186 **Psychotria helferiana** Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 134; Wong, Tree Fl. Malaya 4 (1989) 396; Keng, Conc. Fl. Sing. (1990) 159.

2187 **Psychotria maingayi** Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 131; Keng, Conc. Fl. Sing. (1990) 160.

2188 **Psychotria malayana** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 139; Wong, Tree Fl. Malaya 4 (1989) 397; Keng, Conc. Fl. Sing. (1990) 160; — *P. stipulacea* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 140; Henderson, Mal. Wild Fl. Dic. (1959) 222; Keng, Conc. Fl. Sing. (1990) 160.

2189 **Psychotria obovata** Wall.; Ridley, Fl. Mal. Pen. 2 (1923) 129; Henderson, Mal. Wild Fl. Dic. (1959) 221; Keng, Conc. Fl. Sing. (1990) 160; —*P. polycarpa* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98.

2190 **Psychotria ovoidea** Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 130; Keng, Conc. Fl. Sing. (1990) 160.

2191 **Psychotria penangensis** Hook. *f.*; Ridley, Fl. Mal. Pen. 2 (1923) 132; Keng, Conc. Fl. Sing. (1990) 160.

2192 **Psychotria ridleyi** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 133; Keng, Conc. Fl. Sing. (1990) 160.

2193 **Psychotria rostrata** Bl.; Ridley, Fl. Mal. Pen. 2 (1923) 134; Henderson, Mal. Wild Fl. Dic. (1959) 222; Wong, Tree Fl. Malaya 4 (1989) 397; Keng, Conc. Fl. Sing. (1990) 160; — *Chasalia rostrata* (Bl.) Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 99.

2194 **Psychotria sarmentosa** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 98; Ridley, Fl. Mal. Pen. 2 (1923) 131; Henderson, Mal. Wild Fl. Dic. (1959) 221; Keng, Conc. Fl. Sing. (1990) 160.

2195 **Psydrax** *sp.* **10**, Wong, Tree Fl. Malaya 4 (1989) 404; — *Canthium didymum sensu* Ridley, J. Str. Br. R. As. Soc. 33 (1900) 96, *p.p.*

2196 **Psydrax** *sp.* **11**, Wong, Tree Fl. Malaya 4 (1989) 402.

2197 **Rothmannia macrophylla** (R. Br. *ex* Hook. *f.*) Bremek.; Wong, Malay. Nat. J. 38 (1984) 48; Wong, Tree Fl. Malaya 4 (1989) 406; — *Randia macrophylla* R. Br. *ex* Hook. *f.*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 95; Ridley, Fl. Mal. Pen. 2 (1923) 78; Corner, Ways. Trees 1st ed. (1940) 556; Henderson, Mal. Wild Fl. Dic. (1959) 216; Corner, Ways. Trees, 3rd ed. (1988) 648; Keng, Conc. Fl. Sing. (1990) 161.

2198 **Saprosma glomerulatum** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 170; Corner, Ways. Trees, 3rd ed. (1988) 650; Wong, Tree Fl. Malaya 4 (1989) 407; Keng, Conc. Fl. Sing. (1990) 161.

2199 **Scyphiphora hydrophyllacea** GAERTN. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 89; WATSON, Mal. For. Rec. 6 (1928) 84; CORNER, Ways. Trees 1st ed. (1940) 559; CORNER, Ways. Trees, 3rd ed. (1988) 650; WONG, Tree Fl. Malaya 4 (1989) 89; KENG, Conc. Fl. Sing. (1990) 161.

2200 **Tarenna adpressa** (KING) MERR.; CORNER, Ways. Trees 1st ed. (1940) 560 (*"appressa"*); CORNER, Ways. Trees, 3rd ed. (1988) 651; WONG, Tree Fl. Malaya 4 (1989) 411; KENG, Conc. Fl. Sing. (1990) 161; — *T. papillosa* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 103; — *Stylocoryna adpressa* KING; RIDLEY, Fl. Mal. Pen. 2 (1923) 110.

2201 **Tarenna costata** (MIQ.) MERR.; CORNER, Ways. Trees, 3rd ed. (1988) 651; WONG, Tree Fl. Malaya 4 (1989) 415; — *Stylocoryna costata* MIQ.; RIDLEY, Fl. Mal. Pen. 2 (1923) 109.

2202 **Tarenna fragrans** (NEES) K. & V.; CORNER, Ways. Trees, 3rd ed. (1988) 652; WONG, Tree Fl. Malaya 4 (1989) 411; KENG, Conc. Fl. Sing. (1990) 161; — ?*Webera fragrans*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; — *Stylocoryna fragrans* (NEES) DC.; RIDLEY, Fl. Mal. Pen. 2 (1923) 108.

2203 **Tarenna mollis** (WALL. *ex* HOOK. *f.*) B.L. ROBINSON; CORNER, Ways. Trees, 3rd ed. (1988) 652; WONG, Tree Fl. Malaya 4 (1989) 416; KENG, Conc. Fl. Sing. (1990) 161; — *Webera mollis* WALL. *ex* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; — *Stylocoryna mollis* (WALL. *ex* HOOK. *f.*) KING; RIDLEY, Fl. Mal. Pen. 2 (1923) 109.

2204 **Tarenna odorata** (ROXB.) B.L. ROBINSON; RIDLEY, Fl. Mal. Pen. 2 (1923) 105; WONG, Tree Fl. Malaya 4 (1989) 410; — *Webera grandifolia* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; — *T. grandifolia* (HOOK. *f.*) RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 104; KENG, Conc. Fl. Sing. (1990) 161.

2205 **Tarenna ridleyi** (PEARS. *ex* KING) RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 106, *p.p.*; WONG, Tree Fl. Malaya 4 (1989) 412; — *Webera sp. 6147*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 94; — *Webera ridleyi* PEARS. *ex* KING; RIDLEY, J. Str. Br. R. As. Soc. 35 (1901) 88.

2206 **Tarenna stellulata** (HOOK. *f.*) RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 106; CORNER, Ways. Trees, 3rd ed. (1988) 653; WONG, Tree Fl. Malaya 4 (1989) 412; KENG, Conc. Fl. Sing. (1990) 162.

2207 **Timonius compressicaulis** (MIQ.) BOERL.; CORNER, Ways. Trees 1st ed. (1940) 563; WONG, Kew Bull. 43 (1988) 514; CORNER, Ways. Trees, 3rd ed. (1988) 655; WONG, Tree Fl. Malaya 4 (1989) 417; KENG, Conc. Fl. Sing. (1990) 162; — *T. finlaysonianus* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; RIDLEY, Fl. Mal. Pen. 2 (1923) 113.

2208 **Timonius flavescens** (JACK) BAKER; CORNER, Ways. Trees 1st ed. (1940) 564; WONG, Kew Bull. 43 (1988) 504; CORNER, Ways. Trees, 3rd ed. (1988) 655; WONG, Tree Fl. Malaya 4 (1989) 418; KENG, Conc. Fl. Sing. (1990) 162; — *T. jambosella* (*non* THW.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 95; — *T. peduncularis* RIDL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 113.

SHORT COMMUNICATION

A new combination in *Lobelia* L. (Campanulaceae: Lobelioideae)

The separation of *Lobelia* and *Pratia* on the basis of a solitary character-fruit type (*Lobelia* with dehiscent capsules, cf. *Pratia* with indehiscent berries) has been a problem historically. Several overseas authors (e.g. Moeliono & Tuyn 1960) have opted to combine the two under the early name *Lobelia* on the grounds that fruit type is unreliable. Citing as evidence Moeliono & Tuyn (l.c.) claim to have examined a collection of the Malesian species *Lobelia angulata* Forst. with both fleshy berries and true capsules. *Pratia purpurascens* (R. Br.) F. Wimmer is an example of an Australian species that may have variable fruits. Carolin (1982) describes the fruits of *Pratia purpurascens* as tardily dehiscent, but Wimmer (1953) was confident that the fruits are indehiscent.

Despite the uncertainty of fruit type as a reliable character for separating *Pratia* and *Lobelia*, the two genera have long been accepted by Australian herbaria. Various flora treatments (e.g. Wiecek 1992) have attempted to correlate additional characters with fruit type. Such characters include sexuality, habit, anther tube apex and relative dimensions of the upper and lower corolla lobes. Although some of these characters may be useful regionally for the identification of relatively few species, when all species of *Lobelia* and *Pratia* are considered, few, if any, of these characters correlate well with fruit type. Generic limits in Lobelioideae are presently one of my concerns and in due course this work will be published.

Although the status of *Pratia* and *Lobelia* is presently uncertain there is little doubt that the generic placement of *Pratia darlingensis* F. Wimmer is incorrect. Wimmer described *P. darlingensis* without seeing ripe fruit, but assumed that they would be indehiscent. I have examined fruiting specimens housed at NSW, CBG, CANB and BRI and studied fruit development in cultivated plants obtained from near Bourke, and in all instances have found fully ripe fruit to be capsular and loculicidally dehiscent. As fruits mature the summit expands to 1–1.5 mm above the top of the hypanthium (base of calyx lobes) and finally splits into two valves when fully mature. The paucity of fully ripe fruiting herbarium specimens, and the frequent persistence of the corolla, which can obsure the summit of the fruit, are the likely reasons why this has escaped notice.

If *Pratia* and *Lobelia* remain as separate genera the generic placement of *Pratia darlingensis* is incorrect because the fruit are capsular. If the two genera are united under *Lobelia* a new combination is also required for *Pratia darlingensis*. The new combination is made here as the correct generic placement is assured irrespective of the ultimate status of the two genera.

Lobelia darlingensis occurs with certainty in New South Wales and Queensland. At BRI it has been filed under *Pratia* sp. Q1 (aff. *puberula*). The Victorian record cited by Wimmer (1943) is based on a Mueller specimen from the Darling River. It is likely that Mueller's specimen was collected in New South Wales.

Lobelia darlingensis *(F. Wimmer) Albr.*, comb. nov.

BASIONYM: *Pratia darlingensis* F. Wimmer, Das Pflanzenreich IV. 276b (Heft 106): 108, fig. 27 (1943).

Acknowledgements

I am grateful to the Directors of NSW, AD, CBG, CANB and BRI for loans and access to their collections, and to Mike Maher of the Department of Conservation and Land Management at Bourke for the collection of live material.

References

Carolin, R.C. (1982) Lobeliaceae. Pp. 433–435 in N.C.W. Beadle, O.D. Evans & R.C. Carolin, *Flora of the Sydney Region*. edn 3. (Reed: Sydney)

Moeliono, B. & Tuyn, P. (1960) Campanulaceae. Pp. 107–141 in C.G.G.J. van Steenis (ed.), Flora Malesiana. ser. 1, 6, part 1. (Noordhoff–Kolff: Djakarta).

Wiecek, B. (1992) Lobeliaceae. Pp. 123–131 in G.J. Harden (ed.), *Flora of New South Wales*. vol. 3. (University of New South Wales Press: Sydney.)

Wimmer, F.E. (1943) Campanulaceae–Lobelioideae, I. Teil. Pp. 1–260 in R. Mansfeld (ed.), *Das Pflanzenreich*. IV. 276b. (Heft 106). (Wilhelm Engelmann: Leipzig).

Wimmer, F.E. (1953) Campanulaceae–Lobelioideae, II. Teil. Pp. 261–813 in R. Mansfeld (ed.), *Das Pflanzenreich*. IV. 276b. (Heft 107). (Akademie Verlag: Berlin).

Manuscript received 13 May 1993
Manuscript accepted 20 September 1993

David Albrecht
National Herbarium of Victoria
Birdwood Ave
South Yarra Victoria 3141
Australia

SHORT COMMUNICATION

Allocasuarina duncanii, a new species in *Allocasuarina* section *Cylindropitys* (Casuarinaceae)

In December 1992, Mr Fred Duncan, a Botanist on the staff of the Tasmanian Forestry Commission, while on a survey of the headwaters catchment of Nicholls Rivulet in the Snug Tiers area south of Hobart, came upon a population of several hundred Allocasuarina trees. Their cone and branchlet articles resembled those of *A. monilifera* (L.A.S. Johnson) L.A.S Johnson but their erect, conifer-like appearance and height caused him to suspect that they represented a distinct taxon. Following a subsequent visit to the area in February 1993, Mr Duncan brought specimens to one of us (D.I.M .) at the Tasmanian Herbarium, and we now consider it appropriate to recognise a distinct species, which, though closely related to *A. monilifera*, appears to be sharply distinguished from that species and to stand outside its range of variation.

Allocasuarina duncanii *L.A.S. Johnson & D. Morris*, **sp. nov.**

Inter species sectionis Cylindropityos combinatione distinguitur: arbor parva, erecta, usque ad 8 m alta, dioica; articuli usque ad 20 cm longi, sulcis glabratis, phyllichniis complanatis vel rotundo-convexis vel obtuso-angulatis; laminae 0.8–1.5 mm longae, non plerumque imbricatae denique ad apicem marcescentes; inflorescentiae masculae 7.5–1.3 mm longae, generaliter 6–8 verticillis; corpus infructescentiae 1.5–6 cm longum, 12–25 mm diam.; samarae 6–10 mm longa, atrae.

Holotype: Tasmania: Snug Plains, headwaters of Nicholls Rivulet, *D.I. Morris 86488 & R.F. Duncan*, 17 Mar 1993 (HO 300109); isotypes AD, CANB, MEL, NSW.

Dioecious small tree up to 8 m in height, of erect habit. Branchlets up to 20 cm long, articles 4–17 mm long, 0.9–1.4 mm in diameter, smooth, furrows glabrous; phyllichnia flat, rounded or bluntly angled; teeth 7–9, appressed to slightly spreading, usually not overlapping, 0.8–1.5 mm long or on juvenile growth and young plants up to 3.5 mm long, recurved. Male spikes 7.5–13 mm long, early deciduous, usually with 6–8 whorls; anthers c. 1 mm long. Female cones on peduncles 4–10 mm long; cone body 1.5–6 cm long, 12–25 mm in diameter, bracteoles obtuse, the protuberance equalling the bracteole body. Samaras 6–10 mm long, dark brown to black. Figure 1.

Distribution: At present known only from the type locality.

Habitat: On dolerite in dry sclerophyll forest of *Eucalyptus delegatensis* subsp. *tasmaniensis* with shrubby undergrowth, NE aspect, altitude c. 600 m.

Notes: Most of the plants in the population appear to be of more or less the same age and probably arose as regrowth following wildfire in summer 1972–73. The notes with a specimen collected from the area in 1979, identified then as *Casuarina monilifera*, described the plants as 'erect shrubs to 5 m', which suggests that the population has since reached its full height. Specimens in which branchlet articles and cones are at the lower range of sizes recorded could be mistaken for *A. monilifera* but the entire size range may be found on the same plant. Male flower spikes do not attain the same length those of *A. monilifera* and appear to be produced less prolifically.

The nearest recorded population of *A. monilifera* is at Longley, some 15 km to the north of the Snug Plains.

Conservation Status: The area is within a State Forest with Deferred Forest classification, subject to further scientific study for its conservation value. It is intended that

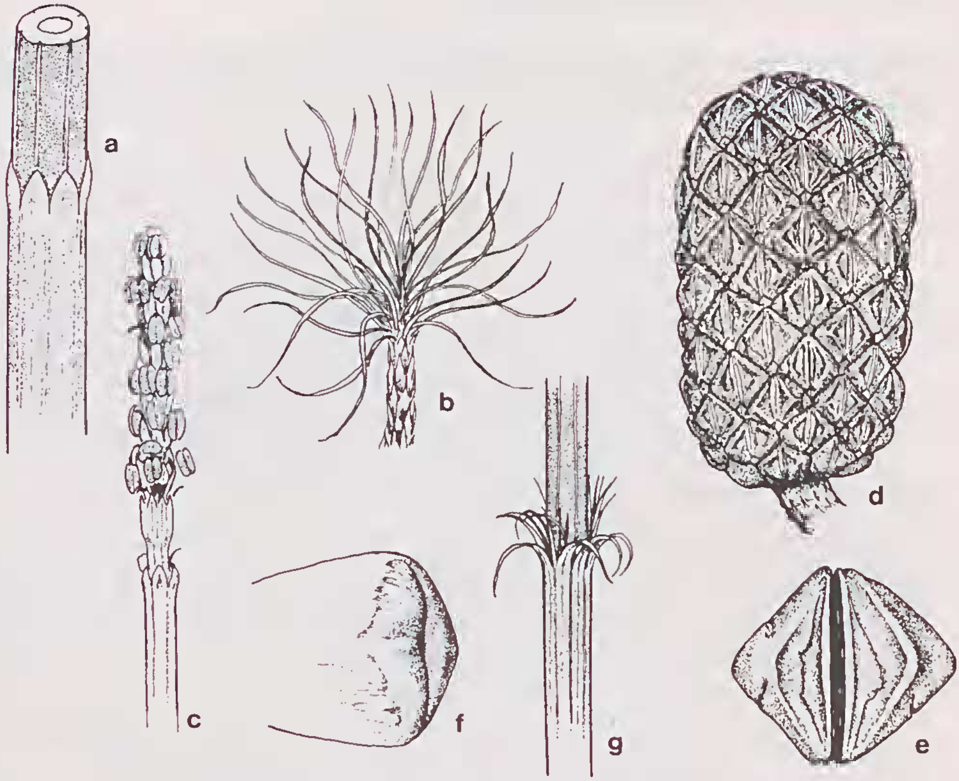

Figure 1. *Allocasuarina duncanii.* **a**, branchlet article x 10; **b**, female inflorescence x 3; c, male inflorescence x 4; **d**, cone x 1; e, pair of bracteoles x 5; **f**, bracteole, side view x 5; **g**, branchlet article, juvenile growth x 5.

there should be no logging in the area for at least ten years while assessments are being made.

EPITHET: The species is named for Mr Fred Duncan who brought the plant to our attention and who, for many years, has been a discerning plant collector.

Manuscript received 12 August 1993
Manuscript accepted 17 January 1994

L.A.S. Johnson
National Herbarium of New South Wales
Royal Botanic Gardens
Sydney, NSW 2000
Australia

D.I. Morris
Tasmanian Herbarium
GPO Box 252C
Hobart, Tasmania 7001
Australia

2255 **Nephelium cuspidatum** Bl. *var.* **eriopetalum** (Miq.) Leenh., Blumea 31 (1986) 389; Yap, Tree Fl. Malaya 4 (1989) 452; Keng, Conc. Fl. Sing. (1990) 121; — *N. eriopetalum* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Ridley, Fl. Mal. Pen. 1 (1922) 502; Corner, Ways. Trees, 3rd ed. (1988) 684.

2256 **Nephelium lappaceum** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Leenhouts, Blumea 31 (1986) 398; Corner, Ways. Trees, 3rd ed. (1988) 684; Yap, Tree Fl. Malaya 4 (1989) 453; Keng, Conc. Fl. Sing. (1990) 121.

2257 **Nephelium laurinum** Bl.; Leenhouts, Blumea 31 (1986) 404; Yap, Tree Fl. Malaya 4 (1989) 453; — *N. rubescens* Hiern; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66 (*"rufescens"*); Ridley, Fl. Mal. Pen. 1 (1922) 500; EJHC2 593; Corner, Ways. Trees, 3rd ed. (1988) 686; Keng, Conc. Fl. Sing. (1990) 121; — *N. caudifolium* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 500; — *N. herveyi* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 500, *p.p.*

2258 **Nephelium ramboutan-ake** (Labill.) Leenh., Blumea 31 (1986) 415; Yap, Tree Fl. Malaya 4 (1989) 454; Keng, Conc. Fl. Sing. (1990) 121; — *N. chryseum* (*non* Bl.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66 (*cult.*); — *N. mutabile* Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 501; Corner, Ways. Trees, 3rd ed. (1988) 686.

2259 **Paranephelium macrophyllum** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 67; Ridley, Fl. Mal. Pen. 1 (1922) 509; Corner, Ways. Trees 1st ed. (1940) 594; Davids, Blumea 29 (1984) 432; Corner, Ways. Trees, 3rd ed. (1988) 686; Yap, Tree Fl. Malaya 4 (1989) 456; Keng, Conc. Fl. Sing. (1990) 121.

2260 **Pometia pinnata** Forst.; Ridley, Fl. Mal. Pen. 1 (1922) 504; Corner, Ways. Trees, 3rd ed. (1988) 688; Yap, Tree Fl. Malaya 4 (1989) 457; Keng, Conc. Fl. Sing. (1990) 121; — *P. alnifolia* Radlk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Ridley, Fl. Mal. Pen. 1 (1922) 504; Corner, Ways. Trees, 3rd ed. (1988) 688; — *P. gracilis* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; — *P. macrocarpa* Kurz; Ridley, Fl. Mal. Pen. 1 (1922) 503.

2261 **Trigonachras acuta** (Hiern) Radlk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Ridley, Fl. Mal. Pen. 1 (1922) 507; Corner, Ways. Trees 1st ed. (1940) 596; Corner, Ways. Trees, 3rd ed. (1988) 689; Yap, Tree Fl. Malaya 4 (1989) 459; Keng, Conc. Fl. Sing. (1990) 121.

2262 **Xerospermum laevigatum** Radlk.; Ridley, Fl. Mal. Pen. 1 (1922) 497; Burkill, Dict. (1935) 2272; Leenhouts, Blumea 28 (1983) 391; Yap, Tree Fl. Malaya 4 (1989) 461; — *X. unijugum* Radlk.; Ridley, Fl. Mal. Pen. 1 (1922) 497.

2263 **Xerospermum noronhianum** Bl.; Leenhouts, Blumea 28 (1983) 394; Yap, Tree Fl. Malaya 4 (1989) 461; Keng, Conc. Fl. Sing. (1990) 121; — *X. muricatum* Radlk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Corner, Ways. Trees 1st ed. (1940) 456; Corner, Ways. Trees, 3rd ed. (1988) 690; — *X. wallichii* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 66; Ridley, Fl. Mal. Pen. 1 (1922) 498; Burkill, Dict. (1935) 2272; — *X. echinulatum* Radlk.; Ridley, Fl. Mal. Pen. 1 (1922) 497; — *X. intermedium* Radlk.; Ridley, Fl. Mal. Pen. 1 (1922) 497.

SAPOTACEAE

2264 **Chrysophyllum lanceolatum** (Bl.) DC.; Ng, Tree Fl. Malaya 1 (1972) 396; Keng, Conc. Fl. Sing. (1990) 134; — *C. roxburghii* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 105; Ridley, Fl. Mal. Pen. 2 (1923) 257.

2265 **Ganua kingiana** (Brace) van den Assem; Ng, Tree Fl. Malaya 1 (1972) 399; Keng, Conc. Fl. Sing. (1990) 134; — *Bassia kingiana* Brace; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106 (*"kingii"*); Ridley, Fl. Mal. Pen. 2 (1923) 267; — *Madhuca kingiana* (Brace) Lam; Ridley, Fl. Mal. Pen. 5 (1925) 319.

2266 **Ganua motleyana** (de Vr.) Pierre *ex* Dubard; Ng, Tree Fl. Malaya 1 (1972) 399; Keng, Conc. Fl. Sing. (1990) 134; — *Bassia kingiana* Brace; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106; Ridley, Fl. Mal. Pen. 2 (1923) 271; — *Madhuca kingiana auct., non* (Brace) Lam; Ridley, Fl. Mal. Pen. 5 (1925) 320; — *G. scortechinii* K. & G.) Lam; Burkill, Dict. (1935) 1045.

2267 **Ganua sessilis** (King & Gamble) Lam; Ng, Tree Fl. Malaya 1 (1972) 399; Keng, Conc. Fl. Sing. (1990) 134; — *Payena sessilis* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 265.

2268 **Madhuca decipiens** Sinclair; Ng, Tree Fl. Malaya 1 (1972) 405; — *Payena grandiflora* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 262, *p.p.*.

2269 **Madhuca malaccensis** (Clarke) Lam; Ridley, Fl. Mal. Pen. 5 (1925) 319; Ng, Tree Fl. Malaya 1 (1972) 407; Keng, Conc. Fl. Sing. (1990) 134; — *Bassia malaccensis* (Clarke) K. & G.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106; Ridley, Fl. Mal. Pen. 2 (1923) 268; — *Bassia elongata* (*non* Miq.) Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 272.

2270a **Madhuca sericea** (Miq.) Lam *var.* **sericea**; Ng, Tree Fl. Malaya 1 (1972) 410; — *Bassia argentea* Clarke; Ridley, Fl. Mal. Pen. 2 (1923) 270.

2270b **Madhuca sericea** *var.* **ridleyi** (Gandoger) Ng; Ng, Tree Fl. Malaya 1 (1972) 410; Keng, Conc. Fl. Sing. (1990) 134.

2271 **Palaquium gutta** (Hook. *f.*) Baill.; Ridley, Fl. Mal. Pen. 2 (1923) 274; Ng, Tree Fl. Malaya 1 (1972) 420; Corner, Ways. Trees, 3rd ed. (1988) 695; Keng, Conc. Fl. Sing. (1990) 134; — *Dichopsis gutta* (Hook. *f.*) Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106.

2272 **Palaquium hexandrum** (Griff.) Baill.; Ridley, Fl. Mal. Pen. 2 (1923) 277; Ng, Tree Fl. Malaya 1 (1972) 421; Keng, Conc. Fl. Sing. (1990) 135.

2273 **Palaquium microphyllum** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 276; Ng, Tree Fl. Malaya 1 (1972) 423; Keng, Conc. Fl. Sing. (1990) 135.

2274 **Palaquium obovatum** (Griff.) Engl.; Ridley, Fl. Mal. Pen. 2 (1923) 273; Ng, Tree Fl. Malaya 1 (1972) 423; Corner, Ways. Trees, 3rd ed. (1988) 695; Keng, Conc. Fl. Sing. (1990) 135; — *Dichopsis obovata* (Griff.) Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106.

2275 **Palaquium oxleyanum** Pierre; Ridley, Fl. Mal. Pen. 2 (1923) 275; Ng, Tree Fl. Malaya 1 (1972) 424; Keng, Conc. Fl. Sing. (1990) 135.

2276 **Palaquium ridleyi** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 276; Ng, Tree Fl. Malaya 1 (1972) 426; Keng, Conc. Fl. Sing. (1990) 135; — *Mimusops hexandra* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106.

2277 **Palaquium rostratum** (Miq.) Burck; Ng, Tree Fl. Malaya 1 (1972) 426; Keng, Conc. Fl. Sing. (1990) 135; — *P. bancanum* Burck; Ridley, Fl. Mal. Pen. 2 (1923) 275; — *P. calophylloides* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 276; — *Bassia cuneata* Bl. *sensu* Ridley (Ridley 6502, see Ng *loc. cit.* 413); Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106; Ridley, Fl. Mal. Pen. 2 (1923) 272.

2278 **Palaquium xanthochymum** (de Vr.) Pierre; Ridley, Fl. Mal. Pen. 2 (1923) 275; Ng, Tree Fl. Malaya 1 (1972) 428; Keng, Conc. Fl. Sing. (1990) 135; — *Dichopsis rubens* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106.

? 2279 **Payena leerii** (T. & B.) Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 106; Ridley, Fl. Mal. Pen. 2 (1923) 263; Ng, Tree Fl. Malaya 1 (1972) 438.

One dubiously localised sheet.

2280 **Payena lucida** (G. Don) DC.; Ridley, Fl. Mal. Pen. 2 (1923) 263; Ng, Tree Fl. Malaya 1 (1972) 433; Keng, Conc. Fl. Sing. (1990) 135; — *P. dasyphylla* (Miq.) Pierre *var. glabrata* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 265.

2281 **Payena maingayi** Clarke; Ridley, Fl. Mal. Pen. 2 (1923) 262; Ng, Tree Fl. Malaya 1 (1972) 433; Keng, Conc. Fl. Sing. (1990) 135; — *P. grandiflora* Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 262, *p.p.*

2282 **Payena obscura** Burck; Ng, Tree Fl. Malaya 1 (1972) 433; Keng, Conc. Fl. Sing. (1990) 135; — *P. havilandii* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 263.

2283 **Planchonella maingayi** (Clarke) van Royen; Ng, Tree Fl. Malaya 1 (1972) 436; Keng, Conc. Fl. Sing. (1990) 135; — *Sideroxylon maingayi* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 105; Ridley, Fl. Mal. Pen. 2 (1923) 258; — *Lucuma maingayi* (Clarke) Dubard; Burkill, Dict. (1935) 1369.

2284 **Planchonella obovata** (R. Br.) Pierre; Burkill, Dict. (1935) 1765; Ng, Tree Fl. Malaya 1 (1972) 437; Corner, Ways. Trees, 3rd ed. (1988) 696; Keng, Conc. Fl. Sing. (1990) 135; — *Sideroxylon ferrugineum* Hook. & Arn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 105; Ridley, Fl. Mal. Pen. 2 (1923) 259.

2285 **Pouteria malaccensis** (Clarke) Baehni; Ng, Tree Fl. Malaya 1 (1972) 438; Keng, Conc. Fl. Sing. (1990) 135; — *Sideroxylon malaccense* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 105; Ridley, Fl. Mal. Pen. 2 (1923) 258; — *Lucuma malaccensis* (Clarke) Dubard.

SARCOSPERMATACEAE

2286 **Sarcosperma paniculatum** (King) Stapf & King; King & Gamble, J. As. Soc. Bengal 74 (1905) 160; Ridley, Fl. Mal. Pen. 2 (1923) 260; Lam, Fl. Males. I 4^1 (1948) 32; Ng, Tree Fl. Malaya 1 (1972) 440.

SAXIFRAGACEAE

2287 **Polyosma conocarpa** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 684; Saw, Tree Fl. Malaya 4 (1989) 464; — *P. integrifolia* Bl. *var. mutabilis* Khulze-Menz; Keng, Conc. Fl. Sing. (1990) 25.

2288 **Polyosma kingiana** Schltr.; Saw, Tree Fl. Malaya 4 (1989) 466; Keng, Conc. Fl. Sing. (1990) 25; — *P. flavo-virens* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 686.

2289 **Polyosma ridleyi** King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 78; Ridley, Fl. Mal. Pen. 1 (1922) 686; Saw, Tree Fl. Malaya 4 (1989) 468.

SCHISANDRACEAE

2290 **Kadsura scandens** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 38; Ridley, Fl. Mal. Pen. 1 (1922) 20; Keng, Conc. Fl. Sing. (1990) 9; — *K. cauliflora* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 38; Ridley, Fl. Mal. Pen. 1 (1922) 20.

SCROPHULARIACEAE

2291 **Adenosma indicum** (Lour.) Merr.; Keng, Conc. Fl. Sing. (1990) 179; — *A. capitatum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 118; Ridley, Fl. Mal. Pen. 2 (1923) 474; Henderson, Mal. Wild Fl. Dic. (1959) 330.

2292 **Adenosma inopinatum** Prain; Ridley, Fl. Mal. Pen. 2 (1923) 474; Keng, Conc. Fl. Sing. (1990) 179; — *A. caeruleum* R. Br.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 118; Ridley, Fl. Mal. Pen. 2 (1923) 474; Henderson, Mal. Wild Fl. Dic. (1959) 330.

2293 **Adenosma javanicum** (Bl.) Koord.; Keng, Conc. Fl. Sing. (1990) 179; — *A. ovatum* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 118; Ridley, Fl. Mal. Pen. 2 (1923) 474; Henderson, Mal. Wild Fl. Dic. (1959) 329.

A 2294 **Bacopa monnieri** (L.) Pennell; Keng, Conc. Fl. Sing. (1990) 179; Corlett, J. Biogeog. 19 (1992) 427; — *Herpestis monnieri* (L.) H.B.K.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 118; Ridley, Fl. Mal. Pen. 2 (1923) 475.

2295 **Centranthera tranquebarica** (Spreng.) Merr.; Keng, Conc. Fl. Sing. (1990) 179; — *C. humifusa* Wall.; Ridley, Fl. Mal. Pen. 2 (1923) 487.

2296 **Legazpia polygonoides** (Benth.) Yamazaki, J. Jap. Bot.; 30 (1955) 359; — *Torenia polygonoides* Benth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 118; Ridley, Fl. Mal. Pen. 2 (1923) 482; Henderson, Mal. Wild Fl. Dic. (1959) 331; Keng, Conc. Fl. Sing. (1990) 180.

2297 **Limnophila chinensis** (Osb.) Merr. *ssp.* **aromatica** (Lam.) Yamazaki; Yamazaki, J. Fac. Sci. Univ. Tokyo III 13 (1985) 600; — *L. gratissima* Bl.; Ridley, Fl. Mal. Pen. 2 (1923) 478; — *L. aromatica* (Lamk.) Merr.; Henderson, Mal. Wild Fl. Dic. (1959) 327; Philcox, Kew Bull. 24 (1970) 145; Keng, Conc. Fl. Sing. (1990) 179.

2298 **Limnophila laxa** BENTH.; RIDLEY, Fl. Mal. Pen. 2 (1923) 478; PHILCOX, Kew Bull. 24 (1970) 161; KENG, Conc. Fl. Sing. (1990) 179; — *L. pulcherrima* [*non* (GRIFF.) HOOK. *f.*] HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118, *p.p.*

2299 **Limnophila sessiliflora** (VAHL) BL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 478; PHILCOX, Kew Bull. 24 (1970) 112; KENG, Conc. Fl. Sing. (1990) 179.

2300 **Limnophila villosa** BL.; RIDLEY, Fl. Mal. Pen. 2 (1923) 477; PHILCOX, Kew Bull. 24 (1970) 141; KENG, Conc. Fl. Sing. (1990) 179; — *L. pulcherrima sensu* RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118, *p.p.*

2301 **Lindernia anagallis** (BURM. *f.*) PENNELL; PHILCOX, Kew Bull. 22 (1968) 45; KENG, Conc. Fl. Sing. (1990) 179; — *Vandellia pedunculata* BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118; RIDLEY, Fl. Mal. Pen. 2 (1923) 481; HENDERSON, Mal. Wild Fl. Dic. (1959) 333.

2302 **Lindernia antipoda** (L.) ALSTON; PHILCOX, Kew Bull. 22 (1968) 57; KENG, Conc. Fl. Sing. (1990) 179; — *Bonnaya veronicaefolia* (RETZ.) SPRENG.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118; RIDLEY, Fl. Mal. Pen. 2 (1923) 486; HENDERSON, Mal. Wild Fl. Dic. (1959) 334.

2303 **Lindernia ciliata** (COLSM.) PENNELL; PHILCOX, Kew Bull. 22 (1968) 51; KENG, Conc. Fl. Sing. (1990) 179; — *Bonnaya brachiata* LINK & OTTO; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 119; RIDLEY, Fl. Mal. Pen. 2 (1923) 485.

2304 **Lindernia crustacea** (L.) F.v.MUELL.; HENDERSON, Mal. Wild Fl. Dic. (1959) 333; PHILCOX, Kew Bull. 22 (1968) 17; KENG, Conc. Fl. Sing. (1990) 180; — *Vandellia crustacea* (L.) BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118; RIDLEY, Fl. Mal. Pen. 2 (1923) 479.

2305 **Lindernia elata** (BENTH.) WETTST.; YAMAZAKI, J. Fac. Sci. Univ. Tokyo, Sect. III 13 (1981) 20; — *Vandellia elata* BENTH.; RIDLEY, Fl. Mal. Pen. 2 (1923) 481.

2306 **Lindernia pusilla** (WILLD.) BOLDINGH; PHILCOX, Kew Bull. 22 (1968) 41; — *Vandellia scabra* BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118; RIDLEY, Fl. Mal. Pen. 2 (1923) 480.

2307 **Lindernia ruelliïdes** (COLSM.) PENNELL; PHILCOX, Kew Bull. 22 (1968) 54; KENG, Conc. Fl. Sing. (1990) 180; — *Bonnaya reptans* (ROXB.) SPRENG.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 119; RIDLEY, Fl. Mal. Pen. 2 (1923) 485.

A 2308 **Lindernia sessiliflora** (BENTH.) WETTST.; SINCLAIR, Gard. Bull. Sing. 15 (1956) 24; PHILCOX, Kew Bull. 22 (1968) 10; CORLETT, J. Biogeog. (1988) 663; KENG, Conc. Fl. Sing. (1990) 180; — *L. nummulariifolia* (D. DON) WETTST.; SMITH, Fl. Vit. Nov. 5 (1991) 80.

2309 **Lindernia viscosa** (HORNEM.) BOLDINGH; PHILCOX, Kew Bull. 22 (1968) 38; YAMAZAKI, J. Fac. Sci. Univ. Tokyo III 13 (1981) 34; KENG, Conc. Fl. Sing. (1990) 180; — *Vandellia hirsuta* HAM. *ex* BENTH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 118; RIDLEY, Fl. Mal. Pen. 2 (1923) 480.

2310 **Mazus pumilus** (BURM. *f.*) VAN STEEN.; CRAMER, Rev. Handb. Fl. Ceyl. 3 (1981) 445; — *M. rugosus* LOUR.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 117; RIDLEY, Fl. Mal. Pen. 2 (1923) 473; KENG, Conc. Fl. Sing. (1990) 180.

2311 **Microcarpaea minima** (KOEN. *ex* RETZ.) MERR.; KENG, Conc. Fl. Sing. (1990) 180; — *M. muscosa* R. BR.; RIDLEY, Fl. Mal. Pen. 2 (1923) 486.

A 2312 **Scoparia dulcis** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 119; RIDLEY, Fl. Mal. Pen. 2 (1923) 488; HENDERSON, Mal. Wild Fl. Dic. (1959) 328; CORLETT, J. Biogeog. (1988) 663; KENG, Conc. Fl. Sing. (1990) 180.

2313 **Stemodia verticillata** (MILL.) HASSLER; SINCLAIR, Gard. Bull. Sing. 15 (1956) 24.

2314 **Striga asiatica** (L.) O.KTZE.; HENDERSON, Mal. Wild Fl. Dic. (1959) 328; KENG, Conc. Fl. Sing. (1990) 180; — *S. lutea* LOUR.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 119; — *S. hirsuta* BENTH.; RIDLEY, Fl. Mal. Pen. 2 (1923) 487.

SIMAROUBACEAE

2315 **Ailanthus integrifolia** LAM.; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 346.

2316 **Brucea javanica** (L.) MERR.; NOOTEBOOM, Fl. Males. I 6^2 (1962) 211; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 348; CORNER, Ways. Trees, 3rd ed. (1988) 698; KENG, Conc. Fl. Sing. (1990) 99; — *B. sumatrana* ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 57; RIDLEY, Fl. Mal. Pen. 1 (1922) 361; — *B. amarissima* DESV. *ex* GOMES; CORNER, Ways. Trees 1st ed. (1940) 603.

2317 **Eurycoma longifolia** JACK; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 57; RIDLEY, Fl. Mal. Pen. 1 (1922) 362; BURKILL, Dict. (1935) 984; CORNER, Ways. Trees 1st ed. (1940) 604; NOOTEBOOM, Fl. Males. I 6^2 (1962) 205; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 349; CORNER, Ways. Trees, 3rd ed. (1988) 699; KENG, Conc. Fl. Sing. (1990) 99.

2318 **Irvingia malayana** OLIV. *ex* BENN.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 57; RIDLEY, Fl. Mal. Pen. 1 (1922) 364; CORNER, Ways. Trees 1st ed. (1940) 604; NOOTEBOOM, Fl. Males. I 6^2 (1962) 225; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 350; CORNER, Ways. Trees, 3rd ed. (1988) 699; KENG, Conc. Fl. Sing. (1990) 99.

2319 **Quassia indica** (GAERTN.) NOOTEB.; NOOTEBOOM, Fl. Males. I 6^2 (1962) 199; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 352; KENG, Conc. Fl. Sing. (1990) 99; — *Samadera indica* GAERTN.; RIDLEY, Fl. Mal. Pen. 1 (1922) 363; BURKILL, Dict. (1935) 1945.

SMILACACEAE

2320 **Heterosmilax indica** A. DC.; RIDLEY, J. Str. Br. R. As. Soc. 35 (1901) 90; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 108; RIDLEY, Fl. Mal. Pen. 4 (1924) 344; KENG, Gard. Bull. Sing. 40 (1987) 118.

2321 **Smilax bracteata** PRESL *var.* **barbata** (WALL. *ex* DC.) KOYAMA; KENG, Gard. Bull. Sing. 40 (1987) 119; — *S. barbata* WALL. *ex* DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 168; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 106; RIDLEY, Fl. Mal. Pen. 4 (1924) 342; HENDERSON, Mal. Wild Fl. Monoc. (1954) 181.

2322 **Smilax calophylla** WALL. *ex* DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 168; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 102; RIDLEY, Fl. Mal. Pen. 4 (1924) 339; HENDERSON, Mal. Wild Fl. Monoc. (1954) 180; KENG, Gard. Bull. Sing. 40 (1987) 119.

2323 **Smilax carbularia** KUNTH. *var.* **woodii** (MERR.) KOYAMA; — *S. woodii* MERR.; SINCLAIR, Gard. Bull. Sing. 14 (1953) 36.

2324 **Smilax leucophylla** BL.; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 106; RIDLEY, Fl. Mal. Pen. 4 (1924) 343; KENG, Gard. Bull. Sing. 40 (1987) 119.

2325 **Smilax megacarpa** DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 168; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 104; RIDLEY, Fl. Mal. Pen. 4 (1924) 341; HENDERSON, Mal. Wild Fl. Monoc. (1954) 180; KENG, Gard. Bull. Sing. 40 (1987) 119.

2326 **Smilax myosotiflora** DC.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 168; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 103; RIDLEY, Fl. Mal. Pen. 4 (1924) 340; HENDERSON, Mal. Wild Fl. Monoc. (1954) 180; KENG, Gard. Bull. Sing. 40 (1987) 119.

SOLANACEAE

2327 **Physalis minima** L.; RIDLEY, Fl. Mal. Pen. 2 (1923) 470; HENDERSON, Mal. Wild Fl. Dic. (1959) 325; KENG, Conc. Fl. Sing. (1990) 177.

A 2328 **Solanum ferox** L.; RIDLEY, Fl. Mal. Pen. 2 (1923) 467; CORLETT, J. Biogeog. (1988) 663; KENG, Conc. Fl. Sing. (1990) 177.

2329 **Solanum nigrum** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 117; RIDLEY, Fl. Mal. Pen. 2 (1923) 465; HENDERSON, Mal. Wild Fl. Dic. (1959) 323; KENG, Conc. Fl. Sing. (1990) 178.

A 2330 **Solanum sarmentosum** NEES; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 117; RIDLEY, Fl. Mal. Pen. 2 (1923) 469; CORLETT, J. Biogeog. (1988) 663.

A 2331 **Solanum torvum** SW.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 117; RIDLEY, Fl. Mal. Pen. 2 (1923) 468; HENDERSON, Mal. Wild Fl. Dic. (1959) 324; CORLETT, J. Biogeog. (1988) 663; KENG, Conc. Fl. Sing. (1990) 178.

SONNERATIACEAE

2332 **Sonneratia alba** J.J. SMITH; BACKER & VAN STEENIS, Fl. Males. I 4^3 (1951) 285; WHITMORE, Tree Fl. Malaya 1 (1972) 445; CORNER, Ways. Trees, 3rd ed. (1988) 476; KENG, Conc. Fl. Sing. (1990) 83; — *S. griffithii* (*non* KURZ) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 86; RIDLEY, Fl. Mal. Pen. 1 (1922) 825, *p.p.*; WATSON, Malay. For. Rec. 6 (1928) 120.

2333 **Sonneratia caseolaris** (L.) ENGL.; BURKILL, Dict. (1935) 2052; BACKER & VAN STEENIS, Fl. Males. I 4^3 (1951) 283; WHITMORE, Tree Fl. Malaya 1 (1972) 445; CORNER, Ways. Trees, 3rd ed. (1988) 476; KENG, Conc. Fl. Sing. (1990) 83; — *S. acida* L.*f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 86; RIDLEY, Fl. Mal. Pen. 1 (1922) 825; WATSON, Malay. For. Rec. 6 (1928) 121.

2334 **Sonneratia ovata** BACKER; BACKER & VAN STEENIS, Fl. Males. I 4^3 (1951) 285; SINCLAIR, Gard. Bull. Sing. 14 (1953) 37; WHITMORE, Tree Fl. Malaya 1 (1972) 445; CORNER, Ways. Trees, 3rd ed. (1988) 476; KENG, Conc. Fl. Sing. (1990) 84; — *S. alba* (*non* J.J. SMITH) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 86; RIDLEY, Fl. Mal. Pen. 1 (1922) 825; WATSON, Malay. For. Rec. 6 (1928) 120.

STAPHYLEACEAE

2335 **Turpinia sphaerocarpa** HASSK.; VAN DER LINDEN, Fl. Males. I 6^1 (1960) 57; WHITMORE, Tree Fl. Malaya 1 (1972) 448; KENG, Conc. Fl. Sing. (1990) 121; — *T. pomifera* [*non* (ROXB.) DC.] KING, RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 67; — *T. latifolia* WALL. *ex* RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 512; — *T. laxiflora* RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 512; VAN DER LINDEN, Fl. Males. I 6^1 (1960) 57.

STERCULIACEAE

2336 **Byttneria maingayi** MAST.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53; RIDLEY, Fl. Mal. Pen. 1 (1922) 286; MAXWELL, Gard. Bull. Sing. 35 (1983) 198; KENG, Conc. Fl. Sing. (1990) 92.

2337 **Commersonia bartramia** (L.) MERR.; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 357; CORNER, Ways. Trees, 3rd ed. (1988) 704; KENG, Conc. Fl. Sing. (1990) 92; — *C. platyphylla* ANDR.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53; RIDLEY, Fl. Mal. Pen. 1 (1922) 288.

2338 **Heritiera borneensis** (MERR.) KOSTERM.; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 360; KENG, Conc. Fl. Sing. (1990) 92; — *Tarrietia unifoliata* RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 279.

2339 **Heritiera elata** RIDL.; RIDLEY, Fl. Mal. Pen. 1 (1922) 280; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 361; KENG, Conc. Fl. Sing. (1990) 92; — *Heritiera sp.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53.

2340 **Heritiera littoralis** DRYAND. *ex* W. AIT.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53; RIDLEY, Fl. Mal. Pen. 1 (1922) 279; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 361; CORNER, Ways. Trees, 3rd ed. (1988) 708; KENG, Conc. Fl. Sing. (1990) 92.

2341 **Heritiera simplicifolia** (MAST.) KOSTERM.; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 363; KENG, Conc. Fl. Sing. (1990) 92; — *Tarrietia simplicifolia* MAST.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53; RIDLEY, Fl. Mal. Pen. 1 (1922) 278.

2342 **Kleinhovia hospita** L.; RIDLEY, Fl. Mal. Pen. 1 (1922) 280; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 364; CORNER, Ways. Trees, 3rd ed. (1988) 708; KENG, Conc. Fl. Sing. (1990) 92.

2343 **Melochia corchorifolia** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 53; RIDLEY, Fl. Mal. Pen. 1 (1922) 284; HENDERSON, Mal. Wild Fl. Dic. (1959) 41; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 366; KENG, Conc. Fl. Sing. (1990) 92.

2344 **Pterocymbium tubulatum** (MAST.) PIERRE; RIDLEY, Fl. Mal. Pen. 1 (1922) 277; KOCHUMMEN, Tree Fl. Malaya 2 (1973) 367; MAXWELL, Gard. Bull. Sing. 36 (1983) 232; KENG, Conc. Fl. Sing. (1990) 92.

2345 **Pterospermum diversifolium** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 53; Ridley, Fl. Mal. Pen. 1 (1922) 282; Kochummen, Tree Fl. Malaya 2 (1973) 368; Corner, Ways. Trees, 3rd ed. (1988) 710; Keng, Conc. Fl. Sing. (1990) 92.

2346 **Pterospermum javanicum** Jungh.; Kochummen, Tree Fl. Malaya 2 (1973) 368; Corner, Ways. Trees, 3rd ed. (1988) 710; Keng, Conc. Fl. Sing. (1990) 92; — *P. blumeanum* Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 53; Ridley, Fl. Mal. Pen. 1 (1922) 283.

2347 **Scaphium linearicarpum** (Mast.) Pierre; Ridley, Fl. Mal. Pen. 1 (1922) 275; Kochummen, Tree Fl. Malaya 2 (1973) 374; Corner, Ways. Trees, 3rd ed. (1988) 714; Keng, Conc. Fl. Sing. (1990) 92.

2348 **Scaphium macropodum** (Miq.) Beumee *ex* Heyne; Kochummen, Tree Fl. Malaya 2 (1973) 374; Corner, Ways. Trees, 3rd ed. (1988) 714; Keng, Conc. Fl. Sing. (1990) 93; — *Sterculia scaphigera* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 52; — *S. affine* (Mast.) Pierre; Ridley, Fl. Mal. Pen. 1 (1922) 275.

2349 **Sterculia bicolor** Mast.; Ridley, Fl. Mal. Pen. 1 (1922) 274; Kochummen, Tree Fl. Malaya 2 (1973) 378; Keng, Conc. Fl. Sing. (1990) 93.

2350 **Sterculia coccinea** Jack; Kochummen, Tree Fl. Malaya 2 (1973) 377; Corner, Ways. Trees, 3rd ed. (1988) 715; Keng, Conc. Fl. Sing. (1990) 93; — *S. laevis* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 52; Ridley, Fl. Mal. Pen. 1 (1922) 269.

2351 **Sterculia cordata** Bl.; Kochummen, Tree Fl. Malaya 2 (1973) 378; Keng, Conc. Fl. Sing. (1990) 93; — *S. javanica* R. Br.; Ridley, Fl. Mal. Pen. 1 (1922) 274.

2352 **Sterculia elongata** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 270; Kochummen, Tree Fl. Malaya 2 (1973) 377; Keng, Conc. Fl. Sing. (1990) 93.

2353 **Sterculia macrophylla** Vent.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 52; Ridley, Fl. Mal. Pen. 1 (1922) 268; Kochummen, Tree Fl. Malaya 2 (1973) 382; Corner, Ways. Trees, 3rd ed. (1988) 716; Keng, Conc. Fl. Sing. (1990) 93.

2354 **Sterculia parviflora** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 52; Ridley, Fl. Mal. Pen. 1 (1922) 271; Kochummen, Tree Fl. Malaya 2 (1973) 382; Corner, Ways. Trees, 3rd ed. (1988) 716; Keng, Conc. Fl. Sing. (1990) 93.

2355 **Sterculia rubiginosa** Vent.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 52; Ridley, Fl. Mal. Pen. 1 (1922) 271; Kochummen, Tree Fl. Malaya 2 (1973) 378; Corner, Ways. Trees, 3rd ed. (1988) 717; Keng, Conc. Fl. Sing. (1990) 93.

2356 **Waltheria indica** L.; Ridley, Fl. Mal. Pen. 1 (1922) 285; Henderson, Mal. Wild Fl. Dic. (1959) 41; Sinclair, Gard. Bull. Sing. 15 (1956) 23.

STYRACACEAE

2357 **Styrax benzoin** Dryand.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 297; Burkill, Dict. (1935) 2105; van Steenis, Fl. Males. I 4^2 (1949) 52; Putz & Ng, Tree Fl. Malaya 3 (1978) 263; Keng, Conc. Fl. Sing. (1990) 136.

2358 **Styrax crotonoides** Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108; Ridley, Fl. Mal. Pen. 2 (1923) 298; Burkill, Dict. (1935) 2107; van Steenis, Fl. Males. I 4^2 (1949) 53; Putz & Ng, Tree Fl. Malaya 3 (1978) 263; Keng, Conc. Fl. Sing. (1990) 137.

SYMPLOCACEAE

2359 **Symplocos adenophylla** Wall. *ex* G. Don; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 107; Ridley, Fl. Mal. Pen. 2 (1923) 303; Nooteboom; Fl. Males. I 8^2 (1977) 239; Kochummen, Tree Fl. Malaya 3 (1978) 268; Keng, Conc. Fl. Sing. (1990) 137.

2360 **Symplocos barringtonifolia** Brand; Nooteboom; Fl. Males. I 8^2 (1977) 242; Kochummen, Tree Fl. Malaya 3 (1978) 268; Keng, Conc. Fl. Sing. (1990) 137; — *S. rigida* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 107; Ridley, Fl. Mal. Pen. 2 (1923) 306.

2361 **Symplocos celastrifolia** Griff. *ex* Clarke; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 107; ; Ridley, Fl. Mal. Pen. 2 (1923) 302; Nooteboom; Fl. Males. I 8^2 (1977) 244; Kochummen, Tree Fl. Malaya 3 (1978) 269; Keng, Conc. Fl. Sing. (1990) 137.

2362 **Symplocos fasciculata** Zoll.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 107; Ridley, Fl. Mal. Pen. 2 (1923) 301; Corner, Ways. Trees 1st ed. (1940) 622; Nooteboom; Fl. Males. I 8^2 (1977) 259; Kochummen, Tree Fl. Malaya 3 (1978) 270; Corner, Ways. Trees, 3rd ed. (1988) 718; Keng, Conc. Fl. Sing. (1990) 137.

2363 **Symplocos lucida** (Thunb.) S. & Z.; Nooteboom; Fl. Males. I 8^2 (1977) 264; — *S. ridleyi* King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 302; — *Symplocos sp. "Donoon"*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 108.

2364 **Symplocos odoratissima** (Bl.) Choisy *ex* Zoll.; K&G 233; Ridley, Fl. Mal. Pen. 2 (1923) 299; Nooteboom; Fl. Males. I 8^2 (1977) 266; Kochummen, Tree Fl. Malaya 3 (1978) 272; Keng, Conc. Fl. Sing. (1990) 137; — *S. pulverulenta* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 300.

2365 **Symplocos rubiginosa** Wall. *ex* DC.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 107; Ridley, Fl. Mal. Pen. 2 (1923) 306; Nooteboom; Fl. Males. I 8^2 (1977) 271; Kochummen, Tree Fl. Malaya 3 (1978) 273; Keng, Conc. Fl. Sing. (1990) 137.

TACCACEAE

2366 **Tacca integrifolia** Ker-Gawl.; Drenth, Fl. Males. I 7(4) 811, Keng, Gard. Bull. Sing. 40 (1987) 121, — *T. cristata* Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 167, Ridl., Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) (1907) 77; Ridley, Fl. Mal. Pen. 4 (1924) 310; Henderson, Mal. Wild Fl. Monoc. (1954) 187; — *T. chantrieri* (*non* André) Ridl. Ridley, Fl. Mal. Pen. 4 (1924) 309.

2367 **Tacca leontopetaloides** (L.) O. Kuntze; Drenth, Fl. Males. I 7(4) 809; Keng, Gard. Bull. Sing. 40 (1987) 121, — *T. pinnatifida* J. R. & G. Forst.; Ridl., Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) (1907) 76; Ridley, Fl. Mal. Pen. 4 (1924) 309; Sinclair, Gard. Bull. Sing. 14 (1953) 36; Henderson, Mal. Wild Fl. Monoc. (1954) 188.

TETRAMERISTACEAE

2368 **Tetramerista glabra** Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 57; Ridley, Fl. Mal. Pen. 1 (1922) 367; Keng, Tree Fl. Malaya 4 (1989) 470; Keng, Conc. Fl. Sing. (1990) 50.

THEACEAE

2369 **Adinandra acuminata** Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48; Ridley, Fl. Mal. Pen. 1 (1922) 194; Keng, Tree Fl. Malaya 3 (1978) 277; Corner, Ways. Trees, 3rd ed. (1988) 721; Keng, Conc. Fl. Sing. (1990) 50.

2370 **Adinandra dumosa** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48; Ridley, Fl. Mal. Pen. 1 (1922) 194; Keng, Tree Fl. Malaya 3 (1978) 278; Corner, Ways. Trees, 3rd ed. (1988) 721; Keng, Conc. Fl. Sing. (1990) 50.

2371 **Adinandra integerrima** T. Anders. *ex* Dyer; Ridley, Fl. Mal. Pen. 3 (1924) 196; Keng, Tree Fl. Malaya 3 (1978) 279; —*A. hullettii* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48; Ridley, Fl. Mal. Pen. 3 (1924) 196; Keng, Conc. Fl. Sing. (1990) 50.

2372 **Eurya acuminata** DC.; Ridley, Fl. Mal. Pen. 1 (1922) 199; Keng, Tree Fl. Malaya 3 (1978) 282; Corner, Ways. Trees, 3rd ed. (1988) 722; Keng, Conc. Fl. Sing. (1990) 50; — *E. monticola* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 199.

2373 **Gordonia multinervis** King; Ridley, Fl. Mal. Pen. 1 (1922) 203; Keng, Tree Fl. Malaya 3 (1978) 286; Keng, Conc. Fl. Sing. (1990) 50.

2374 **Gordonia penangensis** Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 203; Keng, Tree Fl. Malaya 3 (1978) 286; Keng, Conc. Fl. Sing. (1990) 50; — *G. excelsa* (*non* Bl.) King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 49.

2375 **Gordonia singaporiana** Wall. *ex* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 202; Keng, Tree Fl. Malaya 3 (1978) 286; Corner, Ways. Trees, 3rd ed. (1988) 723; Keng, Conc. Fl. Sing. (1990) 50.

2376 **Pyrenaria acuminata** Planch. *ex* Choisy; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 49; Ridley, Fl. Mal. Pen. 1 (1922) 200; Keng, Tree Fl. Malaya 3 (1978) 290; Corner, Ways. Trees, 3rd ed. (1988) 725; Keng, Conc. Fl. Sing. (1990) 50.

2377 **Ternstroemia bancana** Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 197; Keng, Tree Fl. Malaya 3 (1978) 293; Keng, Conc. Fl. Sing. (1990) 50; —*Adinandra miquelii* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48.

2378 **Ternstroemia penangiana** Choisy; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48, *p.p.*; Ridley, Fl. Mal. Pen. 1 (1922) 197; Keng, Tree Fl. Malaya 3 (1978) 295.

2379 **Ternstroemia wallichiana** (Griff.) Engl.; Ridley, Fl. Mal. Pen. 1 (1922) 198; Keng, Tree Fl. Malaya 3 (1978) 295; Keng, Conc. Fl. Sing. (1990) 50; — *T. penangiana* (*non* Choisy) Dyer; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 48, *p.p.*

THYMELAEACEAE

2380 **Aquilaria hirta** Ridl.; Ridley, Fl. Mal. Pen. 3 (1924) 148; Ding Hou, Fl. Males. I 6^1 (1960) 12; Whitmore, Tree Fl. Malaya 2 (1973) 385; Keng, Conc. Fl. Sing. (1990) 86; — *A. grandiflora*; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132.

2381 **Aquilaria malaccensis** Lamk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 132; Ridley, Fl. Mal. Pen. 3 (1924) 147; Corner, Ways. Trees 1st ed. (1940) 632; Ding Hou, Fl. Males. I 6^1 (1960) 9; Whitmore, Tree Fl. Malaya 2 (1973) 385; Corner, Ways. Trees, 3rd ed. (1988) 729; Keng, Conc. Fl. Sing. (1990) 86.

2382 **Aquilaria microcarpa** Baill.; Ding Hou, Fl. Males. I 6^1 (1960) 9; Whitmore, Tree Fl. Malaya 2 (1973) 385.

2383 **Enkleia malaccensis** Griff.; Ridley, Fl. Mal. Pen. 3 (1924) 147; Ding Hou, Fl. Males. I 6^1 (1960) 25; Whitmore, Tree Fl. Malaya 2 (1973) 384; Keng, Conc. Fl. Sing. (1990) 86; — *Linostoma scandens* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 133.

2384 **Linostoma pauciflorum** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 133; Ridley, Fl. Mal. Pen. 3 (1924) 146; Ding Hou, Fl. Males. I 6^1 (1960) 27; Whitmore, Tree Fl. Malaya 2 (1973) 384; Keng, Conc. Fl. Sing. (1990) 86.

A 2385 **Wikstroemia ridleyi** Gamble; Ridley, Fl. Mal. Pen. 3 (1924) 146; Ding Hou, Fl. Males. I 6^1 (1960) 34; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 86.

TILIACEAE

2386 **Brownlowia argentata** Kurz; Kochummen, Tree Fl. Malaya 2 (1973) 394; Corner, Ways. Trees, 3rd ed. (1988) 732; Keng, Conc. Fl. Sing. (1990) 87; — *B. riedelii* Hemsl.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84; Ridley, Fl. Mal. Pen. 1 (1922) 292; Watson, Malay. Forest Rec. 6 (1928) 77; — *B. lepidota* Warb.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84 (*presumably B. lanceolata of Ridley, J. Str. Br. R. As. Soc. 33 (1900) 53*).

2387 **Brownlowia tersa** (L.) Kosterm.; Kochummen, Tree Fl. Malaya 2 (1973) 394; Corner, Ways. Trees, 3rd ed. (1988) 732; Keng, Conc. Fl. Sing. (1990) 87; — *B. lanceolata* Benth.; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 84; Ridley, Fl. Mal. Pen. 1 (1922) 291; Watson, Malay. Forest Rec. 6 (1928) 77; Sinclair, Gard. Bull. Sing. 14 (1953) 38; Sinclair, Gard. Bull. Sing. 15 (1956) 29.

A 2388 **Corchorus aestuans** L.; Henderson, Mal. Wild Fl. Dic. (1959) 43; Keng, Conc. Fl. Sing. (1990) 87; — *C. acutangulus* Lamk.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 54; Ridley, Fl. Mal. Pen. 1 (1922) 306; Corlett, J. Biogeog. (1988) 663.

2389 **Grewia acuminata** Juss.; Kochummen, Tree Fl. Malaya 2 (1973) 397; Keng, Conc. Fl. Sing. (1990) 88; — *G. umbellata* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 53; Ridley, Fl. Mal. Pen. 1 (1922) 300.

2390 **Microcos blattaefolia** (Corner) Rao; J. Bombay Nat. Hist. Soc. 48 (1949) 300; — *Grewia latifolia* (*non* Muell. *ex* Benth.) Mast.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 54; Ridley, Fl. Mal. Pen. 1 (1922) 300; — *Grewia blattaefolia* Corner; Kochummen, Tree Fl. Malaya 2 (1973) 399; Corner, Ways. Trees, 3rd ed. (1988) 733; Keng, Conc. Fl. Sing. (1990) 88.

2391 **Microcos hirsutus** (Korth.) Burret, Notizbl. Bot. Gart. Berlin. 9 (1926) 764; — *G. fibrocarpa* (*non* Mast.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 54; — *G. omphacarpa* Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 301; — *Grewia hirsuta* [*non* Vahl] (Korth.) Kochummen, Tree Fl. Malaya 2 (1973) 397; Keng, Conc. Fl. Sing. (1990) 88.

2392 **Pentace triptera** Mast.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 53; Ridley, Fl. Mal. Pen. 1 (1922) 293; Kochummen, Tree Fl. Malaya 2 (1973) 407; Keng, Conc. Fl. Sing. (1990) 88.

2393 **Triumfetta pseudo-cana** Spr. & Craib; Ridley, Fl. Mal. Pen. 1 (1922) 304; Henderson, Mal. Wild Fl. Dic. (1959) 45; Keng, Conc. Fl. Sing. (1990) 89.

2394 **Triumfetta rhomboidea** Jacq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 54; Ridley, Fl. Mal. Pen. 1 (1922) 303; Keng, Conc. Fl. Sing. (1990) 88.

TRIGONIACEAE

2395 **Trigoniastrum hypoleucum** Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 45; Ridley, Fl. Mal. Pen. 1 (1922) 142; Burkill, Dict. (1935) 2182; van Steenis, Fl. Males. I 4^2 (1949) 59; Ng, Tree Fl. Malaya 1 (1972) 449; Keng, Conc. Fl. Sing. (1990) 103.

TRIURIDACEAE

2396 **Sciaphila maculata** Miers; van de Meerendonk, Fl. Males. I 10^1 (1984) 113; Keng, Gard. Bull. Sing. 40 (1987) 115; — *S. affinis* Becc.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 179; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 126; Ridley, Fl. Mal. Pen. 4 (1924) 364; Henderson, Mal. Wild Fl. Monoc. (1954) 203;

2397 **Sciaphila tenella** Bl.; van de Meerendonk, Fl. Males. I 10^1 (1984) 113.

TURNERACEAE

A 2398 **Turnera subulata** J.E. Smith; Backer, Fl. Males. I 4^3 (1951) 236; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 42; — *T. trioniflora* Sims; Ridley, Fl. Mal. Pen. 1 (1922) 838; Burkill, Dict. (1935) 2193.

A 2399 **Turnera ulmifolia** L.; Ridley, Fl. Mal. Pen. 1 (1922) 838; Burkill, Dict. (1935) 2194; Henderson, Mal. Wild Fl. Dic. (1959) 169; Backer, Fl. Males. I 4^3 (1951) 237; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 42.

TYPHACEAE

A 2400 **Typha angustifolia** L.; Backer, Fl. Males. I 4^3 (1951) 243; Tan *et al.*, Gard. Bull. Sing. 44 (1992) 132. — *T. angustata* Bory & Chaubard; Henderson, Mal. Wild Fl. Monoc. (1954) 211;

ULMACEAE

2401 **Gironniera hirta** RIDL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 321; SOEPADMO, Tree Fl. Malaya 2 (1973) 417; SOEPADMO, Fl. Males. I. 8(1) 74.

2402 **Gironniera nervosa** PLANCH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; RIDLEY, Fl. Mal. Pen. 3 (1924) 320; CORNER, Ways. Trees 1st ed. (1940) 688; SOEPADMO, Tree Fl. Malaya 2 (1973) 419; SOEPADMO, Fl. Males. I. 8(1) 74; CORNER, Ways. Trees, 3rd ed. (1988) 736; KENG, Conc. Fl. Sing. (1990) 66.

2403 **Gironniera parvifolia** PLANCH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; RIDLEY, Fl. Mal. Pen. 3 (1924) 321; CORNER, Ways. Trees 1st ed. (1940) 689; SOEPADMO, Tree Fl. Malaya 2 (1973) 419; SOEPADMO, Fl. Males. I. 8(1) 75; CORNER, Ways. Trees, 3rd ed. (1988) 736; KENG, Conc. Fl. Sing. (1990) 66.

2404 **Gironniera subaequalis** PLANCH.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; RIDLEY, Fl. Mal. Pen. 3 (1924) 320; CORNER, Ways. Trees 1st ed. (1940) 690; SOEPADMO, Tree Fl. Malaya 2 (1973) 419; SOEPADMO, Fl. Males. I. 8(1) 75; CORNER, Ways. Trees, 3rd ed. (1988) 736; KENG, Conc. Fl. Sing. (1990) 66.

2405 **Trema angustifolia** (PLANCH.) BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; RIDLEY, Fl. Mal. Pen. 3 (1924) 319; SOEPADMO, Tree Fl. Malaya 2 (1973) 421; SOEPADMO, Fl. Males. I. 8(1) 54; CORNER, Ways. Trees, 3rd ed. (1988) 738; KENG, Conc. Fl. Sing. (1990) 66.

2406 **Trema cannabina** LOUR.; SOEPADMO, Tree Fl. Malaya 2 (1973) 421; SOEPADMO, Fl. Males. I. 8(1) 50; CORNER, Ways. Trees, 3rd ed. (1988) 738; KENG, Conc. Fl. Sing. (1990) 66; — *T. timorensis* (DECNE) BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; — *T. virgata* (PLANCH.) BL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 319.

2407 **Trema tomentosa** (ROXB.) HARA; SOEPADMO, Tree Fl. Malaya 2 (1973) 423; SOEPADMO, Fl. Males. I. 8(1) 53; CORNER, Ways. Trees, 3rd ed. (1988) 739; KENG, Conc. Fl. Sing. (1990) 66; — *T. orientalis* (*non* (L.) BL.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 143; — *T. amboinensis* (WILLD.) BL.; RIDLEY, Fl. Mal. Pen. 3 (1924) 319.

UMBELLIFERAE

2408 **Centella asiatica** (L.) URB.; BUWALDA, Fl. Males. I 4^2 (1949) 117; KENG, Conc. Fl. Sing. (1990) 132; — *Hydrocotyle asiatica* L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 88; RIDLEY, Fl. Mal. Pen. 1 (1922) 869; HENDERSON, Mal. Wild Fl. Dic. (1959) 174.

A 2409 **Eryngium foetidum** L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 89; RIDLEY, Fl. Mal. Pen. 1 (1922) 870; BUWALDA, Fl. Males. I 4^2 (1949) 126; HENDERSON, Mal. Wild Fl. Dic. (1959) 175; CORLETT, J. Biogeog. (1988) 661; KENG, Conc. Fl. Sing. (1990) 132.

2410 **Hydrocotyle sibthorpioides** LAMK.; BUWALDA, Fl. Males. I 4^2 (1949) 115; KENG, Conc. Fl. Sing. (1990) 132; — *H. rotundifolia* ROXB.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 89; RIDLEY, Fl. Mal. Pen. 1 (1922) 870.

URTICACEAE

A 2411 **Boehmeria nivea** (L.) GAUD.; CHEW, Fl. Aust. 3 (1989) 85; KENG, Conc. Fl. Sing. (1990) 67.

2412 **Laportea interrupta** (L.) CHEW; CHEW, Gard. Bull. Sing. 25 (1969) 145; SAW, Tree Fl. Malaya 4 (1989) 473; CHEW, Fl. Aust. 3 (1989) 73; KENG, Conc. Fl. Sing. (1990) 67; — *Fleurya interrupta* (L.) WIGHT; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 359; HENDERSON, Mal. Wild Fl. Dic. (1959) 467.

2413 **Nothocnide mollissima** (BL.) CHEW, Gard. Bull. Sing. 24 (1969) 365; SAW, Tree Fl. Malaya 4 (1989) 473; — *Pipturus mollissimus* (BL.) WEDD.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 367; HENDERSON, Mal. Wild Fl. Dic. (1959) 468; KENG, Conc. Fl. Sing. (1990) 68.

2414 **Pellionia repens** (LOUR.) MERR.; YAHARA, J. Fac. Sci. Univ. Tokyo III 13 (1984) 485; — *P. duveauana* N.E. BR.; RIDLEY, Fl. Mal. Pen. 3 (1924) 362; — *Elatostema repens* (LOUR.) HALL. *f.*; HENDERSON, Mal. Wild Fl. Dic. (1959) 470; KENG, Conc. Fl. Sing. (1990) 67.

A 2415 **Pilea microphylla** (L.) LIEBM.; HENDERSON, Mal. Wild Fl. Dic. (1959) 46; CORLETT, J. Biogeog. (1988) 663; KENG, Conc. Fl. Sing. (1990) 67; — *P. muscosa* LINDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 361.

A 2416 **Pipturus argenteus** (FORST. *f.*) WEDD.; SAW, Tree Fl. Malaya 4 (1989) 476; KENG, Conc. Fl. Sing. (1990) 67.

2417 **Poikilospermum cordifolium** (BARG.-PETR.) MERR.; CHEW, Gard. Bull. Sing. 20 (1963) 66; — *Conocephalus amoenus* KING *ex* HOOK. *f.*; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 357.

2418 **Poikilospermum suaveolens** (BL.) MERR.; CHEW, Gard. Bull. Sing. 20 (1963) 88; KENG, Conc. Fl. Sing. (1990) 68; — *Conocephalus suaveolens* BL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 357.

2419 **Pouzolzia zeylanica** (L.) BENN.; HENDERSON, Mal. Wild Fl. Dic. (1959) 469; CHEW, Fl. Aust. 3 (1989) 86; KENG, Conc. Fl. Sing. (1990) 68; — *P. indica* L.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 148; RIDLEY, Fl. Mal. Pen. 3 (1924) 366.

VERBENACEAE

2420 **Callicarpa longifolia** LAMK.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 123; RIDLEY, Fl. Mal. Pen. 2 (1923) 616; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 301; KENG, Conc. Fl. Sing. (1990) 192.

2421 **Callicarpa maingayi** KING & GAMBLE; RIDLEY, Fl. Mal. Pen. 2 (1923) 615; KOCHUMMEN, Tree Fl. Malaya 3 (1978) 302.

2422 **Clerodendrum deflexum** WALL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 124; RIDLEY, Fl. Mal. Pen. 2 (1923) 624 (*incl. var. bracteatum* RIDL.); KOCHUMMEN, Tree Fl. Malaya 3 (1978) 304; CORNER, Ways. Trees, 3rd ed. (1988) 745; KENG, Conc. Fl. Sing. (1990) 192.

2423 **Clerodendrum inerme** (L.) Gaertn.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 624; Henderson, Mal. Wild Fl. Dic. (1959) 385; Kochummen, Tree Fl. Malaya 3 (1978) 304; Keng, Conc. Fl. Sing. (1990) 193.

2424 **Clerodendrum laevifolium** Bl.; Kochummen, Tree Fl. Malaya 3 (1978) 305; Corner, Ways. Trees, 3rd ed. (1988) 746; Keng, Conc. Fl. Sing. (1990) 193; — *C. dispariifolium* Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 625.

2425 **Clerodendrum phyllomega** Steud. *var.* **myrmecophilum** (Ridl.) Moldenke; Kochummen, Tree Fl. Malaya 3 (1978) 304; Keng, Conc. Fl. Sing. (1990) 193; — *C. myrmecophilum* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 124; Ridley, Fl. Mal. Pen. 2 (1923) 627; Henderson, Mal. Wild Fl. Dic. (1959) 386.

2426 **Clerodendrum villosum** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 124; Ridley, Fl. Mal. Pen. 2 (1923) 627; Kochummen, Tree Fl. Malaya 3 (1978) 304; Corner, Ways. Trees, 3rd ed. (1988) 746; Keng, Conc. Fl. Sing. (1990) 193.

2427 **Duranta erecta** L.; Corner, Ways. Trees, 3rd ed. (1988) 747; Keng, Conc. Fl. Sing. (1990) 193.

2428 **Gmelina asiatica** L.; Ridley, Fl. Mal. Pen. 2 (1923) 622; Kochummen, Tree Fl. Malaya 3 (1978) 306; Corner, Ways. Trees, 3rd ed. (1988) 748; Keng, Conc. Fl. Sing. (1990) 193.

2429 **Gmelina elliptica** J.E. Smith; Kochummen, Tree Fl. Malaya 3 (1978) 306; Corner, Ways. Trees, 3rd ed. (1988) 748; Keng, Conc. Fl. Sing. (1990) 193; — *G. villosa* Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 623.

2430 **Gmelina philippinensis** Cham.; Kochummen, Tree Fl. Malaya 3 (1978) 306; Corner, Ways. Trees, 3rd ed. (1988) 748; Keng, Conc. Fl. Sing. (1990) 194; — *G. hystrix* Schultes; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 623.

A 2431 **Lantana camara** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 122; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 194; — *L. aculeata* L.; Ridley, Fl. Mal. Pen. 2 (1923) 612; Henderson, Mal. Wild Fl. Dic. (1959) 382.

A 2432 **Lantana indica** Roxb.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 122; Ridley, Fl. Mal. Pen. 2 (1923) 612.

2433 **Peronema canescens** Jack; Ridley, J. Str. Br. R. As. Soc. 35 (1901) 89; Ridley, Fl. Mal. Pen. 2 (1923) 636; Kochummen, Tree Fl. Malaya 3 (1978) 306; Corner, Ways. Trees, 3rd ed. (1988) 749; Keng, Conc. Fl. Sing. (1990) 194.

2434 **Phyla nodiflora** (L.) Greene; Kochummen, Tree Fl. Malaya 3 (1978) 298; Keng, Conc. Fl. Sing. (1990) 194; — *Lippia nodiflora* (L.) Mich.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 122; Ridley, Fl. Mal. Pen. 2 (1923) 612; Henderson, Mal. Wild Fl. Dic. (1959) 383.

2435 **Premna corymbosa** (Burm. *f.*) Rottl. & Willd.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Kochummen, Tree Fl. Malaya 3 (1978) 308; Keng, Conc. Fl. Sing. (1990) 194; — *P. integrifolia* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123 (*var. angustior* Clarke); Ridley, Fl. Mal. Pen. 2 (1923) 619; — *P. angustior* (Clarke) Ridl.; Ridley, Fl. Mal. Pen. 2 (1923) 619; — *P. littoralis* K. & G.; Ridley, Fl. Mal. Pen. 2 (1923) 618; — *P. obtusifolia* R. Br.; Corner, Ways. Trees, 3rd ed. (1988) 750, *p.p.*

2436 **Premna foetida** Reinw. *ex* Bl.; Ridley, Fl. Mal. Pen. 2 (1923) 619; Kochummen, Tree Fl. Malaya 3 (1978) 307; Keng, Conc. Fl. Sing. (1990) 194; — *P. obtusifolia* R. Br.; Corner, Ways. Trees, 3rd ed. (1988) 750, *p.p.*

2437 **Premna parasitica** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Kochummen, Tree Fl. Malaya 3 (1978) 307; Keng, Conc. Fl. Sing. (1990) 194; — *P. trichostoma* Miq.; Ridley, Fl. Mal. Pen. 2 (1923) 620.

2438 **Premna punctulata** Clarke; Ridley, Fl. Mal. Pen. 2 (1923) 620; Kochummen, Tree Fl. Malaya 3 (1978) 307; Keng, Conc. Fl. Sing. (1990) 194.

2439 **Premna ridleyi** King & Gamble; Ridley, Fl. Mal. Pen. 2 (1923) 621; Kochummen, Tree Fl. Malaya 3 (1978) 307; Keng, Conc. Fl. Sing. (1990) 194.

2440 **Sphenodesme pentandra** Jack; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 124; Ridley, Fl. Mal. Pen. 2 (1923) 639; Henderson, Mal. Wild Fl. Dic. (1959) 381; Munir, Gard. Bull. Sing. 21 (1966) 357; Keng, Conc. Fl. Sing. (1990) 194.

A 2441 **Stachytarpheta cayennensis** (L.C. Rich.) Vahl; Sinclair, Gard. Bull. Sing. 14 (1953) 34; Corlett, J. Biogeog. (1988) 663.

A 2442 **Stachytarpheta indica** (L.) Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 122; Ridley, Fl. Mal. Pen. 2 (1923) 613; Henderson, Mal. Wild Fl. Dic. (1959) 383; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 195.

A 2443 **Stachytarpheta jamaicensis** (L.) Vahl; Ridley, Fl. Mal. Pen. 2 (1923) 613; Corlett, J. Biogeog. (1988) 663; Keng, Conc. Fl. Sing. (1990) 195.

A 2444 **Stachytarpheta mutabilis** (Jacq.) Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 122; Ridley, Fl. Mal. Pen. 2 (1923) 613; Keng, Conc. Fl. Sing. (1990) 195.

2445 **Teijsmanniodendron coriaceum** (Clarke) Kosterm.; Kochummen, Tree Fl. Malaya 3 (1978) 308; Keng, Conc. Fl. Sing. (1990) 195; — *Vitex coriacea* Clarke; Ridley, Fl. Mal. Pen. 2 (1923) 632; Corner, Ways. Trees 1st ed. (1940) 708; Corner, Ways. Trees, 3rd ed. (1988) 753.

2446 **Teijsmanniodendron pteropodum** (Miq.) Bakh.; Kochummen, Tree Fl. Malaya 3 (1978) 309; Keng, Conc. Fl. Sing. (1990) 195; — *Vitex peralata* King; Ridley, Fl. Mal. Pen. 2 (1923) 634; Corner, Ways. Trees 1st ed. (1940) 709; Corner, Ways. Trees, 3rd ed. (1988) 754; — *Vitex pteropoda* Miq.; Ridley, Fl. Mal. Pen. 2 (1923) 633.

2447 **Vitex gamosepala** Griff.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 635; Kochummen, Tree Fl. Malaya 3 (1978) 310; Corner, Ways. Trees, 3rd ed. (1988) 753.

2448 **Vitex negundo** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 631; Kochummen, Tree Fl. Malaya 3 (1978) 311; Corner, Ways. Trees, 3rd ed. (1988) 753; Keng, Conc. Fl. Sing. (1990) 195.

2449 **Vitex pinnata** L.; Kochummen, Tree Fl. Malaya 3 (1978) 311; Keng, Conc. Fl. Sing. (1990) 195; — *V. pubescens* Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 632; Corner, Ways. Trees, 3rd ed. (1988) 754.

2450 **Vitex trifolia** L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 630; Kochummen, Tree Fl. Malaya 3 (1978) 311; Corner, Ways. Trees, 3rd ed. (1988) 755; Keng, Conc. Fl. Sing. (1990) 195.

2451 **Vitex vestita** Wall. *ex* Schau.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 123; Ridley, Fl. Mal. Pen. 2 (1923) 635; Kochummen, Tree Fl. Malaya 3 (1978) 313; Corner, Ways. Trees, 3rd ed. (1988) 756; Keng, Conc. Fl. Sing. (1990) 195.

VIOLACEAE

2452 **Rinorea anguifera** (Lour.) O.K.; Jacobs & Moore, Fl. Males. I 7^1 (1971) 183; Ng, Tree Fl. Malaya 3 (1978) 315; Keng, Conc. Fl. Sing. (1990) 40; — *Alsodeia echinocarpa* Korth.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 43; Ridley, Fl. Mal. Pen. 1 (1922) 134;

2453 **Rinorea lanceolata** (Wall.) O.K.; Jacobs & Moore, Fl. Males. I 7^1 (1971) 187; Ng, Tree Fl. Malaya 3 (1978) 318; Keng, Conc. Fl. Sing. (1990) 40; — *Alsodeia floribunda* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 44; Ridley, Fl. Mal. Pen. 1 (1922) 132; — *A. grandiflora* Ridl., Ridley, Fl. Mal. Pen. 1 (1922) 132.

VITACEAE

2454 **Ampelocissus ascendiflora** Latiff; Latiff, Fed. Mus. J. n.s. 27 (1982) 87; Keng, Conc. Fl. Sing. (1990) 117.

2455 **Ampelocissus cinnamomea** (Wall.) Planch.; Latiff, Fed. Mus. J. n.s. 27 (1982) 88; Keng, Conc. Fl. Sing. (1990) 117; — *Vitis cinnamomea* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 472.

2456 **Ampelocissus elegans** (Kurz) Gagnep.; Latiff, Fed. Mus. J. n.s. 27 (1982) 89; Keng, Conc. Fl. Sing. (1990) 117; — *Vitis elegans* Kurz; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 473; Henderson, Mal. Wild Fl. Dic. (1959) 56.

2457 **Ampelocissus gracilis** (Wall.) Planch.; Keng, Conc. Fl. Sing. (1990) 117; — *Vitis gracilis* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 472; Henderson, Mal. Wild Fl. Dic. (1959) 55.

2458 **Ampelocissus polystachya** (Wall.) Planch.; Latiff, Fed. Mus. J. n.s. 27 (1982) 91; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis polythyrsa* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; — *Vitis polystachya* Wall.; Ridley, Fl. Mal. Pen. 1 (1922) 473.

2459 **Ampelocissus thyrsiflora** (Bl.) Planch.; Latiff, Fed. Mus. J. n.s. 27 (1982) 90; Keng, Conc. Fl. Sing. (1990) 118.

2460 **Cayratia mollissima** (Wall.) Gagnep.; Latiff, Sains Malaysiana 10 (1981) 136; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis mollissima* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 478.

2461 **Cayratia novemfolia** (Wall. *ex* Laws.) Burk.; Latiff, Sains Malaysiana 10 (1981) 138; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis novemfolia* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 479.

2462 **Cayratia trifolia** (L.) Domin; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis trifolia* L.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 478; Henderson, Mal. Wild Fl. Dic. (1959) 57.

2463 **Cissus hastata** (Miq.) Planch.; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis hastata* Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 478; Henderson, Mal. Wild Fl. Dic. (1959) 56.

2464 **Cissus nodosa** Bl.; Latiff, Malay. Nat. J. 42 (1988) 33; — *Vitis cerasiformis* Teysm.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; — *Vitis glaberrima* Wall.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 477; — *Cissus glaberrima* (Wall.) Planch.; Keng, Conc. Fl. Sing. (1990) 118.

2465 **Cissus repens** Lamk.; Latiff, Malay. Nat. J. 42 (1988) 34; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis repens* W. & A.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 477; Henderson, Mal. Wild Fl. Dic. (1959) 55; — *Vitis diffusa* Miq.; Ridley, Fl. Mal. Pen. 1 (1922) 477; — *Cissus diffusa* (Miq.) Amsh.; Keng, Conc. Fl. Sing. (1990) 118.

2466 **Cissus rostrata** (Miq.) Planch.; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis furcata* Laws.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 476.

2467 **Nothocissus spicifera** (Griff.) Latiff; Latiff, Fed. Mus. J. n.s. 27 (1982) 71; Keng, Conc. Fl. Sing. (1990) 118; — *Vitis macrostachya* Miq.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 472.

2468 **Pterisanthes cissoides** Bl.; Ridley, Fl. Mal. Pen. 1 (1922) 482; Henderson, Mal. Wild Fl. Dic. (1959) 58; Latiff, Fed. Mus. J. n.s. 27 (1982) 48; Keng, Conc. Fl. Sing. (1990) 119.

2469 **Pterisanthes eriopoda** (Miq.) Planch.; Ridley, Fl. Mal. Pen. 1 (1922) 481; Latiff, Fed. Mus. J. n.s. 27 (1982) 57; Keng, Conc. Fl. Sing. (1990) 119.

2470 **Pterisanthes polita** (Miq.) Laws.; Henderson, Mal. Wild Fl. Dic. (1959) 58; Latiff, Fed. Mus. J. n.s. 27 (1982) 53; Keng, Conc. Fl. Sing. (1990) 119; — *P. coriacea* Korth. *ex* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 65; Ridley, Fl. Mal. Pen. 1 (1922) 480.

2471 **Tetrastigma curtisii** (Ridl.) Seusseng.; Latiff, Gard. Bull. Sing. 36 (1983) 223; Keng, Conc. Fl. Sing. (1990) 119; — *Vitis curtisii* Ridl.; Ridley, Fl. Mal. Pen. 1 (1922) 474.

2472 **Tetrastigma lanceolarium** (Roxb.) Planch.; Latiff, Gard. Bull. Sing. 36 (1983) 222; Keng, Conc. Fl. Sing. (1990) 119; — *Vitis kunstleri* King; Ridley, Fl. Mal. Pen. 1 (1922) 475; — *Vitis lanceolarium* (Roxb.) Wall.; Ridley, Fl. Mal. Pen. 1 (1922) 475.

2473 **Tetrastigma lawsoni** (King) Burk.; Burkill, Dict. (1935) 2286; Latiff, Gard. Bull. Sing. 36 (1983) 220; Keng, Conc. Fl. Sing. (1990) 119; — *Vitis lawsoni* King; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 64; Ridley, Fl. Mal. Pen. 1 (1922) 474.

XYRIDACEAE

2474 **Xyris complanata** R. Br.; van Royen, Fl. Males. I. 369; Henderson, Mal. Wild Fl. Monoc. (1954) 193; Keng, Gard. Bull. Sing. 40 (1987) 126; — *X. anceps* (*non* Lamk.) Vahl; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 169.

2475 **Xyris pauciflora** Willd.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 112; Ridley, Fl. Mal. Pen. 4 (1924) 348; van Royen, Fl. Males. I. 371; Henderson, Mal. Wild Fl. Monoc. (1954) 194; Keng, Gard. Bull. Sing. 40 (1987) 126; — *X. schoenoides* (*non* Mart.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 169.

ZANNICHELLIACEAE

2476 **Cymodocea rotundata** Ehrenb. & Hemp. *ex* Aschers.; Sinclair, Gard. Bull. Sing. 15 (1956) 25; den Hartog, The Sea-grasses of the World (1970) 166; Keng, Gard. Bull. Sing. 40 (1987) 115.

2477 **Cymodocea serrulata** (R. Br.) Aschers. & Magnus; Sinclair, Gard. Bull. Sing. 15 (1956) 27; den Hartog, The Sea-grasses of the World (1970) 171; Keng, Gard. Bull. Sing. 40 (1987) 115.

2478 **Halodule pinifolia** (Miki) den Hartog; den Hartog, The Sea-grasses of the World (1970) 158.

2479 **Halodule uninervis** (Forsk.) Aschers.; den Hartog, The Sea-grasses of the World (1970) 147; — *H. tridentata* F.v.M.; Keng, Gard. Bull. Sing. 40 (1987) 115.

2480 **Syringodium isoetifolium** (Aschers.) Dandy; den Hartog, The Sea-grasses of the World (1970) 177; — *Cymodocea isoetifolia* Aschers.; Sinclair, Gard. Bull. Sing. 15 (1956) 25; Keng, Gard. Bull. Sing. 40 (1987) 115.

ZINGIBERACEAE

2481 **Alpinia aquatica** (Retz.) Roscoe; Smith, Edinb. J. Bot. 47 (1990) 45; — *A. melanocarpa* (T. & B.) Ridl. ; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 48; Ridley, Fl. Mal. Pen. 4 (1924) 279; Henderson, Mal. Wild Fl. Monoc. (1954) 150; — *Languas melanocarpa* (T. & B.) Burk.; Holttum, Gard. Bull. Sing. 13 (1950) 159.

2482 **Alpinia conchigera** Griff.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 47; Ridley, Fl. Mal. Pen. 4 (1924) 278; Holttum, Gard. Bull. Sing. 13 (1950) 142; Henderson, Mal. Wild Fl. Monoc. (1954) 147.

2483 **Alpinia galanga** (L.) Sw.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 48; Ridley, Fl. Mal. Pen. 4 (1924) 279; Henderson, Mal. Wild Fl. Monoc. (1954) 150; Smith, Edinb. J. Bot. 47 (1990) 45; — *Languas galanga* (L.) Stuntz; Holttum, Gard. Bull. Sing. 13 (1950) 157.

2484 **Alpinia mutica** Roxb.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 49; Ridley, Fl. Mal. Pen. 4 (1924) 279; Henderson, Mal. Wild Fl. Monoc. (1954) 150; Smith, Edinb. J. Bot. 47 (1990) 51; — *Catimbium muticum* (Roxb.) Holtt.; Holttum, Gard. Bull. Sing. 13 (1950) 150.

2485 **Alpinia rafflesiana** Wall. *ex* Baker; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 166; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 50; Ridley, Fl. Mal. Pen. 4 (1924) 281; Holttum, Gard. Bull. Sing. 13 (1950) 144; Henderson, Mal. Wild Fl. Monoc. (1954) 148.

2486 **Amomum hastilabium** Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 33; Ridley, Fl. Mal. Pen. 4 (1924) 266; Holttum, Gard. Bull. Sing. 13 (1950) 203.

2487 **Amomum xanthophlebium** Bak.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 31; Ridley, Fl. Mal. Pen. 4 (1924) 263; Holttum, Gard. Bull. Sing. 13 (1950) 198; Henderson, Mal. Wild Fl. Monoc. (1954) 159.

2488 **Costus globosus** Bl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 25; Ridley, Fl. Mal. Pen. 4 (1924) 256; Holttum, Gard. Bull. Sing. 13 (1950) 243; Henderson, Mal. Wild Fl. Monoc. (1954) 136.

A 2489 **Costus lucanusianus** J. Braun & K. Sch.

2490 **Costus speciosus** (Koenig) Smith; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 165; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 24; Ridley, Fl. Mal. Pen. 4 (1924) 256; Holttum, Gard. Bull. Sing. 13 (1950) 242; Henderson, Mal. Wild Fl. Monoc. (1954) 136.

2491 **Elettariopsis curtisii** Bak.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 42; Ridley, Fl. Mal. Pen. 4 (1924) 274; Holttum, Gard. Bull. Sing. 13 (1950) 217; Henderson, Mal. Wild Fl. Monoc. (1954) 159; — *E. latiflora* Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 91900) 166.

2492 **Etlingera littoralis** (König) Giseke; Burtt & Smith, Notes R. Bot. Gard. Edinb. 43 (1986) 240; — *Achasma megalocheilos* Griff.; Holttum, Gard. Bull. Sing. 13 (1950) 191; Henderson, Mal. Wild Fl. Monoc. (1954) 157; — *Hornstedtia megalocheilos* (Griff.) Ridl.; Ridley, J. Str. Br. R. As. Soc. 33 (1900) 16; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 3 (1907)8; Ridley, Fl. Mal. Pen. 4 (1924) 270.

2493 **Etlingera punicea** (Roxb.) R.M. Smith, Notes R. Bot. Gard. Edinb. 43 (1986) 249; — *Hornstedtia macrocheilos* (Griff.) Ridl.; Ridley, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 9; Ridley, Fl. Mal. Pen. 4 (1924) 271; — *Achasma macrocheilos* Griff.; Holttum, Gard. Bull. Sing. 13 (1950) 188; Henderson, Mal. Wild Fl. Monoc. (1954) 157.

2494 **Globba leucantha** MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 6; RIDLEY, Fl. Mal. Pen. 4 (1924) 238; HOLTTUM, Gard. Bull. Sing. 13 (1950) 26; HENDERSON, Mal. Wild Fl. Monoc. (1954) 137; LIM, Notes R. Bot. Gard. Edinb. 31 (1972) 267.

2495 **Globba pendula** ROXB.; HOLTTUM, Gard. Bull. Sing. 13 (1950) 29; LIM, Notes R. Bot. Gard. Edinb. 31 (1972) 264; — *G. panicoides* MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 4; RIDLEY, Fl. Mal. Pen. 4 (1924) 235; — *G. uliginosa* MIQ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 3; RIDLEY, Fl. Mal. Pen. 4 (1924) 235.

2496 **Globba variabilis** RIDL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 239; HOLTTUM, Gard. Bull. Sing. 13 (1950) 37; LIM, Notes R. Bot. Gard. Edinb. 31 (1972) 260.

2497 **Hornstedtia conica** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 166; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 37; RIDLEY, Fl. Mal. Pen. 4 (1924) 268; HOLTTUM, Gard. Bull. Sing. 13 (1950) 175.

2498 **Hornstedtia leonurus** (KOENIG) RETZ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 166; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 37; RIDLEY, Fl. Mal. Pen. 4 (1924) 269; HOLTTUM, Gard. Bull. Sing. 13 (1950) 177; HENDERSON, Mal. Wild Fl. Monoc. (1954) 155.

2499 **Hornstedtia scyphifera** (KOENIG) STEUD.; HOLTTUM, Gard. Bull. Sing. 13 (1950) 170; HENDERSON, Mal. Wild Fl. Monoc. (1954) 155; — *H. scyphus* RETZ.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 35; RIDLEY, Fl. Mal. Pen. 4 (1924) 267.

2500 **Plagiostachys lateralis** (RIDL.) RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 166; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 41; RIDLEY, Fl. Mal. Pen. 4 (1924) 273; HOLTTUM, Gard. Bull. Sing. 13 (1950) 161.

25001 **Plagiostachys mucida** HOLTTUM, Gard. Bull. Sing. 13 (1950) 162; HENDERSON, Mal. Wild Fl. Monoc. (1954) 152.

2502 **Zingiber griffithii** BAK.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 29; RIDLEY, Fl. Mal. Pen. 4 (1924) 260; HOLTTUM, Gard. Bull. Sing. 13 (1950) 60; HENDERSON, Mal. Wild Fl. Monoc. (1954) 140.

2503 **Zingiber puberulum** RIDL.; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 29; RIDLEY, Fl. Mal. Pen. 4 (1924) 261; HOLTTUM, Gard. Bull. Sing. 13 (1950) 61; HENDERSON, Mal. Wild Fl. Monoc. (1954) 139.

2504 **Zingiber zerumbet** (L.) SMITH; RIDLEY, J. Str. Br. R. As. Soc. 33 (1900) 165; RIDLEY, Mat. Fl. Mal. Pen. (Monoc.) 2 (1907) 27; HOLTTUM, Gard. Bull. Sing. 13 (1950) 59; — *Z. aromaticum quoad* RIDL.; RIDLEY, Fl. Mal. Pen. 4 (1924) 259, *p.p.*

Acknowledgements

I would like to thank Dr Hsuan Keng for the prolonged loan of his copy of the Flora of Syonan, Dr Hugh Tan and Mr Chua Keng Soon for their assistance and Dr Richard Corlett for his tireless interest in the weeds of Singapore. I am indebted to the Director of the Singapore Botanic Gardens for allowing me to use the facilities of the Gardens' Herbarium and Library. This research was supported by research grant RP 880301 from the National University of Singapore.

References

Burkill, I.H., (1935). *A dictionary of the economic products of the Malay Peninsula*, Crown Agents for the Colonies, London.

Corlett, R.T., (1988). The naturalized flora of Singapore. *Journal of Biogeography* 15, 657-663.

_____. (1992). The naturalized flora of Hong Kong: a comparison with Singapore. *Journal of Biogeography* 19, 421-430.

Corner, E.J.H., (1940). *Wayside Trees of Malaya*, First Edition, Government Printing Office, Singapore

_____. (1952). *Wayside Trees of Malaya*, Second Edition, Government Printing Office, Singapore

_____. (1988). *Wayside Trees of Malaya*, Third Edition, Malayan Nature Society, Kuala Lumpur.

den Hartog, C., (1970). *The sea-grasses of the world*, North Holland Publishing Co., Amsterdam.

Gilliland, H.B., (1971). *A revised flora of Malaya. Vol III. Grasses of Malaya*, Botanic Gardens, Singapore.

Henderson, M.R. (1954). *Malayan Wild Flowers: Monocotyledons*, Malayan Nature Society, Kuala Lumpur

_____. (1959). *Malayan Wild Flowers: Dicotyledons*, Malayan Nature Society, Kuala Lumpur.

Holttum, R.E., (1964). *A revised flora of Malaya. Vol I. Orchids of Malaya*, Government Printing Office, Singapore.

_____. (1968). *A revised flora of Malaya. Vol II. Ferns of Malaya*, Second Edition, Government Printing Office, Singapore.

Johnson, A., (1977). *A student's guide to the ferns of Singapore Island*, Second Edition, Singapore University Press, Singapore.

Keng, H., (1973). Annotated list of seed plants of Singapore (I). *Gardens' Bulletin, Singapore* 26, 233-237.

_____. (1974a). Annotated list of seed plants of Singapore (II). *Gardens' Bulletin, Singapore* 27, 67-83.

_____. (1974b). Annotated list of seed plants of Singapore (III). *Gardens' Bulletin, Singapore* 27, 247-266.

_____. (1976). Annotated list of seed plants of Singapore (IV). *Gardens' Bulletin, Singapore* 28, 237-258.

_____. (1978). Annotated list of seed plants of Singapore (V). *Gardens' Bulletin, Singapore* 31, 84-113.

_____. (1980). Annotated list of seed plants of Singapore (VI). *Gardens' Bulletin, Singapore* 33, 329-367.

_____. (1982). Annotated list of seed plants of Singapore (VII). *Gardens' Bulletin, Singapore* 35, 83-103.

_____. (1983). Annotated list of seed plants of Singapore (VIII). *Gardens' Bulletin, Singapore* 36, 103-124.

_____. (1985). Annotated list of seed plants of Singapore (IX). *Gardens' Bulletin, Singapore* 38, 149-174.

_____. (1986). Annotated list of seed plants of Singapore (X). *Gardens' Bulletin, Singapore* 39, 67-94.

_____. (1987). Annotated list of seed plants in Singapore (XI). *Gardens' Bulletin, Singapore* 40, 113-132.

_____. (1990). *The concise flora of Singapore: gymnosperms and dicotyledons*, Singapore University Press; Singapore.

Kramer, K.U. and Green, P.S., (Eds.) (1990). *The families and genera of vascular plants I. Pteridophytes and gymnosperms.* Springer-Verlag, Berlin.

Maxwell, J.F., (1982). New and interesting plant records for Singapore. *Gardens' Bulletin, Singapore* 35, 191-198.

_____. (1983). New and interesting plant records for Singapore, II. *Gardens' Bulletin, Singapore* 35, 229-232.

Ng, F.S.P. (ed.), (1978). *Tree flora of Malaya*, Volume 3. Longman Malaysia Sdn. Berhad, Kuala Lumpur.

_____. (1989). *Tree flora of Malaya*, Volume 4. Longman Malaysia Sdn. Berhad, Kuala Lumpur.

Piggott, A.G., (1988). *Ferns of Malaysia in colour*, Tropical Press Sdn. Bhd., Kuala Lumpur.

Ridley, H.N., (1900). The flora of Singapore. *Journal of the Straits' Branch of the Royal Asiatic Society* 33, 27-196.

_____. (1901). Supplementary notes on the flora of Singapore. *Journal of the Straits' Branch of the Royal Asiatic Society* 35, 84-90.

_____. (1907). *Materials for a flora of the Malay Peninsula*, Parts I-III, Methodist Publishing House, Singapore.

_____. (1908). A list of the ferns of the Malay Peninsula. *Journal of the Straits' Branch of the Royal Asiatic Society* 50, 1-59.

_____. (1919). The fern-allies and Characeae of the Malay Peninsula. *Journal of the Straits' Branch of the Royal Asiatic Society* 80, 139-164.

_____. (1922-1925). *The flora of the Malay Peninsula*, Volumes I-V, Reeve & Co., London.

Seidenfaden, G. and Wood, J.J.,

_____. (1992). *The orchids of Peninsular Malaysia and Singapore*, Olsen & Olsen, Fredensborg, Denmark.

Sinclair, J., (1953). Additions to the flora of Singapore and new localities in Singapore for some plants thought to be extinct. *Gardens' Bulletin, Singapore* 14, 30-39.

_____. (1956). Additions to the flora of Singapore and new localities in Singapore for some plants thought to be extinct. Part II. *Gardens' Bulletin, Singapore* 15, 22-30.

Tan, H.T.W., Ali bin Ibrahim, Chua, K.S., Turner, I.M., Wee, Y.C., and Chew, P.T., (1992). Additions to the flora of Singapore, I. *Gardens' Bulletin, Singapore* 44, 127-133.

Turner, I.M., Chua, K.S. & Tan, H.T.W., (1990). A checklist of the native and naturalized vascular plants of the Republic of Singapore. *Journal of the Singapore National Academy of Science* 18 & 19, 58-88.

Whitmore, T.C. (ed.),(1972). *Tree flora of Malaya*, Volume 1, Longman Malaysia Sdn. Berhad, Kuala Lumpur.

_____. (1973). *Tree flora of Malaya*, Volume 2, Longman Malaysia Sdn. Berhad, Kuala Lumpur.

_____. (1977). *Palms of Malaya*, Revised Edition, Oxford University Press, Oxford.

APPENDIX A:

Index of the species listed by Ridley (1900 and 1901) for the flora of Singapore, as they appear (*viz.* spelling and authorities) in those publications. Numbers represent the taxon in the main list of the present paper. Letters relate to subsequent appendices whither certain species not included in the main list are referred. Ridley was unable to name some collections from Singapore. These he referred to by collection numbers (usually numbers of four digits) or by brief descriptions. Abbreviated versions of these descriptions have been used for the unnamed species in the index.

Abrus precatorius L.	1247
Abutilon indicum L.	1406
Acacia pennata Willd.	**B**
Acacia pseudo-intsia Miq.	1250
Acalypha indica L.	828
Acanthospermum xanthoides DC.	**E**
Acanthus ebracteatus Vahl	191
Acanthus volubilis Wall.	193
Acorus calamus	**D**
Acriopsis javanica	1731
Acriopsis ridleyi Hook. f.	1732
Acronychia porteri Hook. f.	2228
Acrostichum aureum L.	1
Actephila javanica Miq.	829
Actinodaphne maingayi Hook. f.	1194
Actinodaphne pruinosa Nees	1196
Adenanthera bicolor Moon	1251
Adenanthera pavonina L.	1252
Adenoncos virens Bl.	1733
Adenosacme longifolia Wall.	2163
Adenosma caeruleum	2292
Adenosma capitatum Benth.	2291
Adenosma ovatum Benth.	2293
Adenostemma viscosum Forst.	555
Adhatoda vasica Nees	**C**
Adiantum flabellulatum L.	4
Adina rubescens Hemst.	2179
Adinandra acuminata Korth.	2369
Adinandra dumosa Jack	2370
Adinandra hullettii King	2371
Adinandra maculosa T. Anders.	**B**
Adinandra miquelii King	2377
Adinandra sp.	**E**
Aegiceras majus Gaertn.	1616
Aeschynanthus lobbiana Hook.	987
Aeschynanthus motleyi Clarke	988
Aeschynanthus radicans Jack	989
Aeschynanthus wallichii R. Br.	990
Aeschynomene indica L.	1254
Afzelia retusa Kurz	1315
Aganosma marginata Don	**B**
Agathis loranthifolia Salisb.	**B**
Agelaea hullettii King	592
Agelaea vestita Hook. f.	591
Agelaea wallichii Hook. f.	592
Ageratum conyzoides L.	556
Aglaia cordata Hiern	1469
Aglaia glabriflora Hiern	1472
Aglaia odoratissima Bl.	1474
Aglaia oligophylla Miq.	1475
Aglaia tenuicaulis Hiern	1481
Aglaia trichostemon Dec.	1482
Aglaonema minus Hook. f.	377
Aglaonema nitidum N.E. Br.	379
Aglaonema oblongifolium Schott	378
Agrostistachys longifolia Benth. var. *malayana*	831
Agrostophyllum majus Hook. f.	1735
Agyneia bacciformis Muell.	951
Albizzia lebbek Benth.	**D**
Albizzia littoralis Teysm.	1256
Albizzia lucida Benth.	**B**
Albizzia moluccana	1333
Albizzia odoratissima Benth.	**D**
Albizzia pedicellata Bak.	1255
Alchornea rugosa Muell.	832
Alchornea villosa Muell.	833
Aleurites moluccana Willd.	**D**
Allamanda schottii Pohl	**D**
Allmania nodiflora R. Br.	235
Allophyllus cobbe L.	2246
Alocasia cucullata Schott	**D**
Alocasia denudata Engl.	380
Alocasia indica Schott	381
Alocasia longiloba Miq.	**C**
Alocasia macrorrhizos Schott	381
Alpinia galanga L.	2483
Alpinia melanocarpa Ridl.	2481

Alpinia rafflesiana Wall. 2485
Alseodaphne costalis Nees 1217
Alseodaphne decipiens Hook. f. 1197
Alseodaphne lucida Nees 955
Alseodaphne umbelliflora Hook. f. 1234
Alsodeia echinocarpa Korth. 2452
Alsodeia floribunda King 2453
Alsodeia kunstleriana King **B**
Alsodeia membranacea King **B**
Alsophila comosa Hook. 38
Alsophila latebrosa Hook. 37
Alsophila ridleyi Bak. 38
Alstonia angustifolia Wall. 336
Alstonia grandifolia Miq. **E**
Alstonia scholaris R.Br. 337
Alstonia spathulata Bl. 338
Alternanthera sessilis R. Br. 238
Alysicarpus vaginalis Miq. 1258
Alyxia lucida Wall. 340a
Amaranthus caudatus L. **D**
Amaranthus paniculatus L. **D**
Amaranthus spinosus L. 240
Amaranthus viridis L. **D**
Amomum hastilabium Ridl. 2486
Amoora aphanamixis Schultes 1483
Amoora cucullata Roxb. 1470
Amoora rubescens Hiern 1478
Amoora rubiginosa Hiern 1479
Amorphophallus prainii Hook. f. 382
Amorphophallus sp. **E**
Anacardium occidentale L. 244
Anadendrum medium Schott 383
Anadendrum montanum Schott 384
Andropogon aciculatus Retz. 1013
Andropogon contortus L. 1051
Andropogon pseudograya Kth. 1096
Aneilema nudiflorum Br. 550
Aneilema vaginata Br. 551
Angiopteris evecta Hoffm. 12
Anisogonium cordifolium Mett. 45
Anisomeles ovata R. Br. 1180
Anisophyllea disticha Baill. 2061
Anisophyllea griffithii Oliv. 2062
Anisoptera costata Korth. 762
Anisoptera glabra Kurz 763
Anoectochilus geniculatus Ridl. 1736
Anplectrum annulata Triana 1421
Anplectrum glaucum Triana 1420
Anthistiria arguens Willd. 1108
Anthistiria gigantea var. *villosa* 1108
Antidesma alatum Hook. f. 836
Antidesma cuspidatum Muell. 835
Antidesma fallax Meisn. 834
Antidesma velutinosum Bl. 837
Antrophyum plantagineum Kaulf. **B**
Antrophyum reticulatum Kaulf. **B**
Aphyllorchis pallida Bl. 1737
Aporusa benthamiana Hook. f. 838
Aporusa falcifera Hook. f. 841
Aporusa ficifolia Baill. **B**
Aporusa fruticosa Muell. 842
Aporusa lunata Benth. 843
Aporusa maingayi 844
Aporusa nigricans Hook. f. 846
Aporusa prainiana King 847
Aporusa stellifera Hook. f. **B**
Apostasia nuda R. Br. 1738
Appendicula bifaria Lindl. 1740
Appendicula callosa Bl. 1734
Appendicula lewisii Griff. 1739
Appendicula lucida Ridl. 1741
Aquilaria grandiflora 2380
Aquilaria malaccensis 2381
Aquilaria sp. **E**
Aralidium pinnatifidum Miq. 632
Archytaea vahlii Choisy 468
Ardisia colorata Roxb. 1617
Ardisia crassa Clarke 1618
Ardisia crenata Roxb. 1619
Ardisia humilis Vahl **B**
Ardisia lanceolata Roxb. 1621
Ardisia odontophylla var. *lobbii* **C**
Ardisia sp. (6434) **E**
Ardisia sp. (2816) 1625
Ardisia tuberculata Wall. 1627
Ardisia villosa Roxb. 1628
Areca catechu L. **D**
Arenga saccharifera Labill. **D**
Argostemma elatostemma Hook. **C**
Argostemma parvifolium Benn. **C**
Argostemma spinulosum Clarke **C**
Aristolochia unguliflora Mast. 419
Aromadendron elegans Bl. 1399
Artabotrys maingayi Hk. f. 271
Artabotrys suaveolens Bl. 272
Artabotrys wrayi King 273
Artanema angustifolium Benth. **B**
Artemisia vulgaris L. **D**

Arthrophyllum diversifolium Bl. 411
Artocarpus gomezianus Wall. 1529
Artocarpus kunstleri King 1521
Artocarpus lakoocha Roxb. 1520
Artocarpus lanceifolius Roxb. 1526
Artocarpus lowii King 1527
Artocarpus maingayi King 1528
Artocarpus peduncularis King **B**
Artocarpus rigidus 1530
Artocarpus scortechinii King 1531
Artocarpus sp. medium sized tree **E**
Artocarpus sp. Large tree 1519
Arytera littoralis Bl. 2247
Asclepias curassavica L. 422
Aspidium cicutarium Sw. **B**
Aspidium semibipinnatum Wall. **B**
Aspidium singaporeanum Wall. 166
Aspidium vastum Bl. **B**
Aspidium zollingerianum Kze. **B**
Aspidopterys concava Juss. 1402
Asplenium falcatum Lamk. **B**
Asplenium longissimum Bl. 15
Asplenium macrophyllum Sw. 16
Asplenium squamulatum Bl. **B**
Asplenium tenerum Forst. 20
Asystasia intrusa Bl. 196
Avicennia officinalis Bl. 453
Axonopus cimicinus Beauv. 999
Azolla pinnata R. Br. 21
Baccaurea bracteata Muell. 850
Baccaurea kunstleri King 853
Baccaurea latifolia 855
Baccaurea macrophylla Muell. 856
Baccaurea minor Hook. f. 858
Baccaurea motleyana 859
Baccaurea parviflora Muell. 860
Baccaurea reticulata Hook. f. 863
Baccaurea sp. (6263) **E**
Baccaurea sp. B 852
Baccaurea symplocoides King 848
Bambusa ridleyi Gamble 1003
Barclaya motleyi Hook. 1703
Barringtonia conoidea Griff. 1238
Barringtonia cylindrostachya Griff. 1239
Barringtonia inclyta Miers 1240
Barringtonia pendulum Miers **B**
Barringtonia speciosa Forst. 1237
Bassia cuneata Bl. 2277
Bassia kingii Stapf 2265
Bassia malaccensis 2269
Bassia motleyana De Vr. 2266
Bauhinia semibifida Roxb. 1265
Beilschmiedia malaccensis Hook. f. 1201
Blechnum finlaysonianum Wall. 22
Blechnum orientale L. 24
Blechnum serrulatum Rch. 23
Blumea balsamifera DC. 558
Blumea lacera DC. 560
Blumea membranacea DC. 561
Blyxa malaccensis Ridl. **E**
Boerhavia repens L. 1702
Bonnaya brachiata Link 2304
Bonnaya reptans Spreng. 2307
Bonnaya veronicaefolia Spreng. 2302
Borassus flabellifer L. **D**
Boschia griffithii Mast. 463
Bouea burmanica Griff. 246
Bouea macrophylla Griff. 245
Breynia discigera Muell. 867
Breynia reclinata 868
Breynia rhamnoides Muell. 869
Bridelia pustulata Hook. f. 872
Bridelia tomentosa Bl. 874
Bromheadia alticola Ridl. 1747
Bromheadia aporoides Rchb. f. 1748
Bromheadia palustris Lindl. 1749a
Bromheadia sylvestris Ridl. 1749b
Brownlowia lanceolata Benth. 2387
Brownlowia lepidota R1901 2386
Brownlowia riedelii Hemsl. 2386
Brucea sumatrana Roxb. 2316
Bruguiera caryophylloides Bl. 2063
Bruguiera eriopetala W. & A. 2066
Bruguiera gymnorrhiza Lmk. 2064
Bruguiera parviflora W. & A. 2065
Buchanania florida Schauwer var. *lucida* & var. *petiolaris* 247
Buchanania sessilifolia Bl. 248
Bulbophyllum adenopetalum Lindl. 1756
Bulbophyllum apodum Hook. f. 1751
Bulbophyllum avicella Ridl. 1762
Bulbophyllum botryophorum Ridl. 1753
Bulbophyllum catenarium Ridl. 1764
Bulbophyllum clandestinum Lindl. 1772
Bulbophyllum concinnum Hook. f. 1755
Bulbophyllum densiflorum Ridl. 1773
Bulbophyllum limbatum Lindl. 1757
Bulbophyllum macranthum Lindl. 1758

Bulbophyllum patens King 1770
Bulbophyllum pileatum Lindl. 1766
Bulbophyllum rugosum Ridl. 1771
Bulbophyllum stella Ridl. 1759
Bulbophyllum striatellum Ridl. 1774
Bulbophyllum trifolium Ridl. 1776
Bulbophyllum vermiculare Hook. f. 1778
Bulbostylis barbata Kunth 643
Bulbostylis puberula Kunth 644
Burmannia coelestis Don 477
Burmannia tuberosa Becc. 476
Byttneria maingayi Mast. 2336
Caesalpinia nuga Ait. 1267
Caesalpinia tortuosa Roxb. 1269
Caesulia axillaris Roxb. **E**
Calamus densiflorus Becc. 1935
Calamus diffusus Becc. **C**
Calamus insignis Griff. 1938
Calamus javensis Bl. 1939
Calamus lobbianus Becc. 1941
Calamus oxleyanus Teysm. 1944
Calamus pallidulus Becc. 1940
Calamus singaporensis Becc. 1936
Calamus sp. near radulosus **E**
Calanthe curculigoides Lindl. 1780
Callicarpa longifolia Lamk. 2420
Calophyllum canum Hook. f. **B**
Calophyllum griffithii T. Anders. 1132
Calophyllum inophylloide King 1131
Calophyllum inophyllum L. 1120
Calophyllum macrocarpum Hook. f. 1122
Calophyllum pulcherrimum Wall. 1123
Calophyllum retusum Wall. 1129/
Calophyllum spectabile Willd. 1127
Calophyllum wallichianum Planch. 1125
Calotropis procera R.Br. **D**
Calycopteris floribunda Lamk. **C**
Campnospermum auriculatum Hook. f. 249
Campnospermum griffithii Hook. f. 249
Campnospermum wallichii King 249
Canarium grandiflorum Benn. 484
Canarium kadondon Benn. 487
Canarium nitidum Benn. 483
Canarium pilosum Benn. 484
Canarium planchoni King 492
Canarium purpurascens Benn. 482
Canarium rufum Benn. 482
Canarium secundum Benn. 482
Canavalia obtusifolia DC. 1271
Canavalia turgida DC. 1272
Canna indica L. **D**
Canna warcewiczii **D**
Canthium confertum Korth. 2091
Canthium didymum Roxb. 2195
Canthium glabrum Bl. 2092
Canthium horridum Korth. 2093
Canthium scandens Bl. 2092
Canthium sp. “gading” **E**
Capparis finlaysoniana Wall. 450
Capsicum frutescens L. **D**
Capsicum grossum Willd. **D**
Capsicum minimum **D**
Carallia scortechinii King 2067
Carapa obovata Bl. 1502
Cardiospermum halicacabum L. 2248
Carex ‘cyrtostachys’ Brongn. 645
Careya sp. 1242
Caryota mitis Lour. 1946
Casearia clarkei King 975
Casearia esculenta Roxb. 974
Casearia lobbiana Turcz. 976
Cassia alata L. 1339
Cassia hirsuta L. 1340
Cassia leschenaultiana DC. 1275
Cassia obtusifolia L. 1341
Cassia occidentalis L. 1342
Cassia siamea Lam. **B**
Cassytha filiformis L. 1202
Castanopsis hullettii King 955
Castanopsis hystrix DC. **E**
Castanopsis javanica DC. 954
Castanopsis nephelioides King 958
Castanopsis sp. **E**
Castanopsis sumatrana DC. 953
Castanopsis wallichii King 960
Casuarina equisetifolia Forst. 508
Celastrus championii Benth. **B**
Centipeda orbicularis Lour. 563
Centotheca lappacea Beauv. 1010
Centrosema plumieri Benth. 1273
Cephaelis griffithii Hook. **B**
Ceratolobus kingianus Becc. **B**
Ceratopteris thalictroides L. 29
Cerbera lactaria Ham. 343
Cerbera odollam Gaertn. 344
Ceriops candolleana Arn. 2068
Chailletia deflexifolia Turcz. 740

Champereia griffithiana Planch. 1729
Chasalia curviflora Thw. 2097
Chasalia rostrata Miq. 2193
Cheilanthes tenuifolia Sw. 30
Chisocheton erythrocarpus Hiern 1485
Chisocheton macrophyllus King 1486
Chisocheton patens Bl. 1487
Chisocheton pauciflorus King 1488
Chloranthus officinalis Bl. 528
Chloris barbata Sw. 1012
Choriophyllum malayanum Benth. 849
Chrysophyllum roxburghii G. Don 2264
Cinnamomum iners Reinw. 1203
Cinnamomum javanicum Bl. 1204
Cinnamomum nitidum Bl. 1203
Cirrhopetalum acuminatum Ridl. 1750
Cirrhopetalum blumei Lindl. 1752
Cirrhopetalum citrinum Ridl. 1768
Cirrhopetalum concinnum Hook. f. 1767
Cirrhopetalum linearifolium Ridl. 1750
Cirrhopetalum makoyanum Rchb. f. 1760
Cirrhopetalum medusae Lindl. 1761
Cirrhopetalum microbulbon Ridl. 1770
Cirrhopetalum semibifidum R. 1750
Cirrhopetalum vaginatum Lindl. 1777
Claderia viridiflora Hook. f. 1782
Cladium glomeratum Br. 709
Claoxylon indicum Hassk. 876
Claoxylon longifolium Muell. var.
brachystachys 877
Clausena excavata Burm. 2229
Cleisostoma spicatum Lindl. 1902
Cleistanthus hirsutulus Hook. f. 878
Cleistanthus laevis Hook. f. 882
Cleistanthus macrophyllus Hook. f. 879
Cleistanthus myrianthus Kurz 881
Cleistanthus nitidus Hook. f. C
Cleome aculeatum Jacq. 501
Cleome viscosa L. 505
Clerodendron colebrookianum Walp. C
Clerodendron deflexum Wall. 2422
Clerodendron disparifolium Bl. 2424
Clerodendron fallax Lindl. **D**
Clerodendron fragrans Vent. **D**
Clerodendron inerme Gaertn. 2423
Clerodendron infortunatum Gaertn. C
Clerodendron ixoraeflorum Hassk. C
Clerodendron myrmecophilum Ridl. 2425
Clerodendron paniculatum L. B
Clerodendron siphonanthus R. Br. **D**
Clerodendron squamatum Vahl **D**
Clerodendron villosum Bl. 2426
Clidemia hirta Don 1419
Clitorea cajanifolia Benth. 1277
Clitorea ternatea L. 1278
Cnestis ramiflora Griff. 593
Cocos nucifera L. 1947
Coelodepas ferrugineum Hook. f. **B**
Coelogyne cumingii Lindl. 1785
Coelogyne mayeriana Rchb. f. 1787
Coelogyne rochussennii de Vr. 1788
Coelogyne testacea Lindl. 1789
Coelostegia griffithii Benth. 462
Coix lacryma-jobi L. 1014
Coleus atropurpurea Benth. 1191
Colocasia antiquorum L. 385
Colubrina asiatica Brongn. 2054
Combretum sundaicum Miq. 536
Combretum trifoliatum Vent. **B**
Commelina benghalensis L. 546
Commelina nudiflora L. 547
Commersonia platyphylla Andr. 2337
Connaropsis macrophylla King 1934
Connarus ellipticus King 595
Connarus ferrugineus Jack 594
Connarus grandis Jack 595
Connarus oligophyllus Wall. 596
Connarus semidecandrus Jack 598
Conocephalus amoenus King 2417
Conocephalus scortechinii King C
Conocephalus suaveolens Bl. 2418
Conocephalus subtrinervius Miq. C
Coptosapelta flavescens Korth. 2100
Corchorus acutangulus Lmk. 2388
Corchorus capsularis L. **D**
Cordia myxa L. 471
Corymbis longiflora Hook. f. 1791
Coscinium fenestratum Colebr. 1506
Cosmos bipinnatus **D**
Costus globosus 2488
Costus speciosus Sm. 2490
Cotylelobium flavum Pierre 765
Cratoxylum arborescens Bl. 1160
Cratoxylum formosum Benth. 1162
Cratoxylum polyanthum Korth. 1161
Crinum asiaticum L. 243
Crotalaria alata Ham. 1279
Crotalaria incana L. 1280

Crotalaria quinquefolia L. 1283
Crotalaria retusa L. 1284
Crotalaria saltiana And. 1282
Croton argyratus Bl. 883
Croton caudatus Geisel 885
Croton griffithii Hook. f. 888
Croton olongifolium Roxb. **B**
Cryptocarya ferrea Bl. 1207
Cryptocarya griffithiana Wight 1208
Cryptocarya impressa Meissn. 1209
Cryptocoryne ciliata Fisch. 386
Cryptocoryne griffithii Schott 387
Cryptostylis arachnites Bl. 1792
Ctenolophon parvifolius Oliver 638
Curculigo latifolia Dryand. 1165
Curculigo recurvata Dryand. 1166
Curcuma zedoaria Rosc. **D**
Cyanotis cristata C. B. C. 548
Cyathocalyx maingayi Hk. f. 303
Cyathocalyx virgatus King 299
Cyathostemma hookeri King 278
Cyathostemma scortechinii King 279
Cyathula prostrata Bl. 242
Cycas rumphii Miq. 183
Cyclea peltata Hook. f. var. *arnotti* Miers 1507
Cyclostemon longifolius Bl. 889
Cymbidium aloifolium Sw. 1794
Cymbidium aloifolium var. *pubescens* 1793
Cynanchum ovalifolium 423
Cynodon dactylon Pers. 1016
Cynometra cauliflora L. **D**
Cynometra ramiflora L. 1286
Cyperus bancanus Miq. 676
Cyperus compressus L. 649
Cyperus diffusus vahl 653
Cyperus distans L. 655
Cyperus haspan L. 659
Cyperus iria L. 661
Cyperus malaccensis Lam. 664
Cyperus pilosus Vahl 667
Cyperus radians Nees 670
Cyperus rotundus L. 671
Cyperus stoloniferus Retz. 674
Cyperus zollingeri Steud. 675
Cyrtandra bicolor Jack 991
Cyrtandra pilosa Bl. **C**
Cyrtandromoea acuminata Benth. **C**
Cyrtosperma lasioides Griff. 388
Cystorchis variegata Bl. 1795a
Cystorchis variegata var. *purpurea* 1795b
Dacrydium elatum Wall. **C**
Daemonorops accedens Bl. **E**
Daemonorops angustifolius Mart. 1949
Daemonorops cochleatus Teysm. 1950
Daemonorops crinita Bl. **E**
Daemonorops didymophylla Becc. 1950
Daemonorops geniculatus Mart. 1951
Daemonorops grandis Mart. 1952
Daemonorops hygrophilus Mart. 1949
Daemonorops hystrix Mart. 1953
Daemonorops intermedius Mart. 1952
Daemonorops leptopus Mart. 1955
Daemonorops longipes Mart. 1957
Daemonorops propinquus Becc. 1955
Dalbergia hullettii Prain 1287
Dalbergia junghuhnii Benth. 1288
Dalbergia pseudosissoo Miq. 1290
Dalbergia torta Grah. 1286
Dalbergia velutina Benth. 1291
Daphniphyllum laurinum Baill. 739
Datura fastuosa L. **D**
Davallia elegans Sw. 40
Davallia triphylla Hook. 42
Decaspermum paniculatum Kurz 1639
Dehaasia microcarpa Bl. 1212
Dendrobium acerosum Lindl. 1796
Dendrobium aciculare Lindl. 1797
Dendrobium atropurpureum Miq. 1800
Dendrobium bifarium Lindl. 1799
Dendrobium callibotrys Ridl. 1811
Dendrobium conostalix Rchb. f. 1810
Dendrobium criniferum Lindl. 1852
Dendrobium crumenatum Sw. 1802
Dendrobium dalhousieanum Wall. 1817
Dendrobium eulophotum Lindl. 1806
Dendrobium euphlebium Rchb. f. 1825
Dendrobium flavidulum Ridl. 1824
Dendrobium flexile Ridl. 1803
Dendrobium gemellum Lindl. 1819
Dendrobium junceum Lindl. **C**
Dendrobium kunstleri Hook. f. **E**
Dendrobium laciniosum Ridl. 1854
Dendrobium lamellatum Lindl. 1807
Dendrobium leonis Rchb. f. 1808
Dendrobium lonchophyllum Hook. f. 1851/1855

Dendrobium longicolle Lindl. 1832
Dendrobium pandaneti Ridl. 1813
Dendrobium pensile Ridl. 1814
Dendrobium prostratum Ridl. 1822
Dendrobium pumilum Roxb. 1812
Dendrobium pyropum Ridl. 1801
Dendrobium rhizophoreti Ridl. 1809
Dendrobium serra Lindl. 1798
Dendrobium sinuatum Lindl. 1823
Dendrobium subulatum Hook. f. 1826
Dendrobium teres Lindl. 1822
Dendrobium tuberiferum Hook. f. 1815
Dendrobium villosulum Wall. 1827
Dendrocolla filiformis Ridl. 1790
Dendrocolla maculata Ridl. 1914
Dendrocolla trichoglottis Ridl. 1915
Dentella repens Forst. 2101
Derris amoena Benth. 1292
Derris malaccensis Prain **B**
Derris oblonga Benth. **B**
Derris scandens Benth. 1294
Derris sinuata Thw. 1293
Derris sp. **E**
Derris thyrsiflora Benth. 1295
Derris uliginosa Benth. 1296
Desmodium heterophyllum DC. 1300
Desmodium polycarpum DC. 1299
Desmodium polycarpum var. *ovalifolium* 1299
Desmodium triflorum DC. 1301
Desmodium umbellatum DC. 1302
Dialium laurinum Bak. 1303
Dialium maingayi Bak. 1304
Dialium wallichii Prain 1306
Dianella ensifolia Red. 1367
Dichopsis bancana Miq. 2277
Dichopsis gutta Benth. 2271
Dichopsis obovata Clarke 2274
Dichopsis rubens Clarke 2278
Dictyopteris barberi Hook. 162
Dictyopteris difformis Bl. 124
Didymocarpus platypus Clarke 992
Didymocarpus sp. 993
Didymoplexis pallens Griff. 1830
Dillenia indica L. 743
Dilochia wallichii Lindl. 1831
Dimeria ornithopoda Trin. 1032
Dimorphocalyx capillipes Hook. f. **C**
Dioclea reflexa Hook. f. 1307
Dioscorea alata L. **D**
Dioscorea daemona Roxb. 754
Dioscorea deflexa Hook. f. 757
Dioscorea glabra Roxb. 753
Dioscorea laurifolia Wall. 755
Dioscorea oppositifolia L. 761
Dioscorea polyclades Hook. f. 756
Dioscorea pyrifolia Kunth 758
Dioscorea sativa L. 752
Diospyros argentea Griff. 789
Diospyros bilocularis Oliv. 798
Diospyros clavigera 791
Diospyros lucida Wall. 796
Diospyros microphylla Bedd. 790
Diospyros oblonga Wall. 799
Diospyros sapotoides Kurz. **E**
Diospyros sp. 794
Diplazium bantamense Bl. 50
Diplazium pallidum Bl. **B**
Diplazium porrectum Wall. **E**
Diplazium sorzogonense Presl 53
Diplazium speciosum Mett. **B**
Diplazium sylvatiucum Presl 52
Diplazium tomentosum Hook. 54
Dipodium pictum Rchb. f. 1833
Dipteris horsfieldii Br. 55
Dipterocarpus cornutus Dyer 767
Dipterocarpus grandiflorus Blanco 768
Dipterocarpus hasseltii Bl. **B**
Dischidia albida Griff. 424
Dischidia bengalensis Colebr. 426
Dischidia coccinea Griff. 427
Dischidia collyris Wall. 425
Dischidia hirsuta Decne. 428
Dischidia nummularia R.Br. 430
Dischidia rafflesiana Wall. 429
Dischidia wallichii Wight **E**
Dissochaeta annulata Hook. f. 1423
Dissochaeta celebica Bl. 1424
Dissochaeta gracilis Bl. 1425
Dissochaeta intermedia Bl. 1426
Dissochaeta pallida Bl. 1427
Dissochaeta punctulata Hook. f. 1428
Dolichandrone rheedii Seem. 457
Donax grandis Ridl. 1414
Dracaena aurantiacea Wall. 219
Dracaena gracilis Wall 220
Dracaena granulata Hook. f. 222
Dracaena maingayi Hook. f. 223

Dracaena porteri Bak. 224
Dracaena singapurensis Ridl. 225
Dracaena terniflora Roxb. 226
Dracontomelum mangiferum Bl. **B**
Drepananthus pruniferus Maing. 274
Drymoglossum piloselloides Presl 141
Drynaria linnei Bory 57
Drynaria quercifolia 56
Drynaria splendens Hook. **B**
Durio oblongus Mast. 464
Dyera laxiflora Hook. f. 346
Dysophylla auricularia Bl. 1192
Dysoxylum acutangulum Miq. 1490
Dysoxylum cauliflorum Hiern 1492
Dysoxylum costulatum Miq. 1491
Dysoxylum macrothyrsum Miq. 1495
Dysoxylum turbinatum King 1495
Ebermaiera griffithiana Anders. 210
Ebermaiera setigera Nees 212
Echinocarpus sp. 818
Eclipta alba Hassk. 567
Elaeocarpus apiculatus Mast. **B**
Elaeocarpus griffithii Mast. 807
Elaeocarpus hullettii King 811
Elaeocarpus jackianus Wall. 805
Elaeocarpus mastersii King 809
Elaeocarpus parvifolius Wall. 810a
Elaeocarpus pedunculatus Wall. 812
Elaeocarpus petiolatus Wall. 813
Elaeocarpus polystachyus Wall. 814
Elaeocarpus salicifolius King 810b
Elaeocarpus stipularis Bl. 816
Elaphoglossum latifolium Sw. **B**
Elatostema molle Wedd. **C**
Eleocharis capitata Br. 680
Eleocharis chaetaria Roem. 682
Eleocharis fistulosa Schult. 678
Eleocharis ochrostachys Steud. 681
Eleocharis variegata var. *laxiflora* C.B.C. 681
Elephantopus scaber L. 568
Elettariopsis latiflora Ridl. 2491
Eleusine aegyptiaca Desv. 1019
Eleusine indica L. 1037
Eleusine indica var. *coracana* 1036
Ellipanthus griffithii Hook. f. 599
Ellipeia cuneifolia Hk. f. 283
Embelia amentacea Clarke 1629
Embelia coriacea DC. 1632
Embelia lampani Scheff. 1633
Embelia lucida Wall. 834
Embelia ribes Burm. 1634
Emilia sonchifolia DC. 569
Endospermum malaccense Muell. 890
Engelhardtia serrata Bl. 1179
Engelhardtia wallichiana Lindl. 1179
Enhalus koenigii Rich. 1152
Entada spiralis Ridl. 1308
Epipremnum giganteum Schott 389
Eragrostis amabilis Wight 1045
Eragrostis elegantula Steud. 1038
Eragrostis elongata Jacq. 1040
Eragrostis tenella R. & S. 1044
Eranthemum album Nees **B**
Eranthemum andersoni Masters **D**
Eria bractescens Lindl. 1834
Eria endymion Ridl. 1836
Eria floribunda Lindl. 1835
Eria longe-repens Ridl. 1838
Eria neglecta Ridl. 1839
Eria nutans Lindl. 1840
Eria obliqua Lindl. 1841
Eria oligantha Hook. f. 1917
Eria pannea Lindl. 1 842
Eria pudica Ridl. 1844
Eria pulchella Lindl. 845
Eria stellata Lindl. 1837
Eria striolata Rchb. f. 1837
Eria tenuiflora Ridl. 1847
Eria velutina Lindl. 1918
Eria vestita Lindl. 1919
Eriachne pallescens Br. 1 1047
Erigeron linifolius Willd. 565
Eriocaulon sexangulare L. 824
Eriocaulon truncatum Ham. 825
Erioglossum edule Bl. 2252
Erycibe coriacea Wall. **B**
Erycibe griffithii Clarke 610/612
Erycibe leucoxyloides King 611
Erycibe malaccensis Clarke 613
Erycibe princei Wall. 614a
Eryngium foetidum Jacq. 2409
Erythropalum scandens Bl. 1710
Erythroxylum burmanicum Griff. 826
Eugenia acuminatissima Kurz 1647
Eugenia anisosepala Duthie **B**
Eugenia bracteolata **B**
Eugenia chlorantha Duthie 644

Eugenia claviflora Roxb. 1645
Eugenia conglomerata 1646
Eugenia cymosa Lmk. 1686
Eugenia densiflora DC. 1680
Eugenia filiformis Wall. 1650
Eugenia grandis Wight 1653
Eugenia griffithii Duthie 1654
Eugenia helferi Duthie **C**
Eugenia jambolana Lam. **D**
Eugenia laevicaulis Duthie **B**
Eugenia lepidocarpa Wight 1670
Eugenia leptantha Wight **B**
Eugenia lineata Bl. 1660
Eugenia microcalyx Duthie 1661
Eugenia myrtifolia Roxb. 1668
Eugenia nitida non Duthie 1674
Eugenia oblata Roxb. 1666
Eugenia oblongifolia Duthie 1667
Eugenia papillosa Duthie 1671
Eugenia pendens Duthie 1673
Eugenia pyrifolia Wall. 1687
Eugenia scoparia Wall. 1641
Eugenia subdecussata Wall. 1687
Eugenia thumra Roxb. **B**
Eugenia venulosa Wall. 1662
Eugenia zeylanica Wight 1 682
Eulophia graminea Lindl. 1848
Eulophia squalida Lindl. 1849
Euonymus javanicus Bl. 513
Euphorbia atoto Forst. 891
Euphorbia pilulifera L. 893
Euphorbia thymifolia Benn. 894
Euphorbia tirucalli L. **D**
Eurycles sylvestris Salisb. **B**
Eurycoma longifolia Jack 2317
Euthemis leucocarpa Jack 1706
Euthemis minor Jack 1707
Evodia glabra Bl. 2230
Evodia pedunculosa Hook. f. **B**
Evodia robusta Hook. f. 2231
Evodia roxburghiana Benth. 2232
Evolvulus alsinoides L. 615
Excoocaria agallocha L. 894
Fagraea auriculata Jack 1371
Fagraea carnosa Jack 1375
Fagraea fragrans Roxb. 1372
Fagraea ligustrina Bl. 1374
Fagraea morindaefolia Bl. 1374
Fagraea obovata Wall. 1370
Fagraea racemosa Jack 1374
Fagraea speciosa Bl. 1373
Fibraurea chloroleuca Miers 1508
Ficus acamptophylla Miq. **B**
Ficus alba Reinwdt. 1552
Ficus altissima Bl. **B**
Ficus annulata Bl. 1533
Ficus apiocarpa Miq. 1534
Ficus benjamina L. 1537
Ficus binnendykii 1538
Ficus bracteata Wall. 1540
Ficus callicarpa Miq. 1535
Ficus chartacea Wall. 1542
Ficus chrysocarpa Reinw. 1536
Ficus consociata Bl. var. *murtoni* 1543
Ficus diversifolia Bl. 1546
Ficus fistulosa Reinwdt. 1549
Ficus glabella Bl. 1576
Ficus glandulifera Wall. 1550
Ficus globosa Bl. 1551
Ficus indica var. *gelderi* 1560
Ficus laevis Bl. 1555
Ficus microstoma Wall. 1561
Ficus miquelii King 1539
Ficus obscura Bl. 1559
Ficus obtusifolia **B**
Ficus pisifera Wall. 1559
Ficus pisocarpa Wall. 1561
Ficus procera Bl. 1544
Ficus punctata Thunb. **B**
Ficus ramentacea 1567
Ficus recurva Bl. var. *ribesioides* 1563
Ficus religiosa L. 1564
Ficus retusa var. *nitida* 1557
Ficus ribes Reinwdt. **B**
Ficus sumatrana **B**
Ficus urophylla Wall. 1553
Ficus villosa Bl. 1575
Ficus xylophylla Wall. 1577
Fimbristylis acuminata Vah 684
Fimbristylis aestivalis Vahl 69
Fimbristylis asperrima Boeck. 688
Fimbristylis complanata 685
Fimbristylis diphylla Vahl 687
Fimbristylis ferruginea Vahl 689
Fimbristylis globulosa Kunth 691
Fimbristylis leptoclada Benth. 693
Fimbristylis miliacea Vahl 694
Fimbristylis nutans Vahl 695

Fimbristylis pauciflora r. 698
Fimbristylis setacea Benth. 684
Fimbristylis spathacea Roth. 686
Fimbristylis tenera var. *obtusata* 696
Fimbristylis tetragona Br. 701
Flacourtia cataphracta Roxb. **D**
Flacourtia inermis Cl. **B**
Flacourtia rukam Zoll. 978
Flagellaria indica L. 985
Flemingia strobilifera R. Br. 1309
Fleurya interrupta Gaud. 2412
Floscopa scandens Lour. 549
Forrestia marginata Hassk. 544
Forrestia mollis Hassk. 543
Freycinetia angustifolia Bl. 1987
Freycinetia gaudichaudi Benn. **B**
Freycinetia insignis Bl.? 1991
Fuirena umbellata Rottb. 703
Gaertnera grisea Hook. f. 2105
Gaertnera koenigii Wight var. *oxyphylla* Wall. 2107
Gaertnera obesa Hook. f. 2106
Gaertnera viminea Hook. f. 2108
Gahnia tristis Nees 704
Galearia affinis Benn. 897
Galearia phlebocarpa R.Br. 897
Galearia subulata Muell. 897
Galearia wallichii 897
Galeola altissima Rchb. f. **B**
Galeola hydra Rchb. f. 1856
Garcinia atroviridis Griff. 1133
Garcinia bancana Miq. 1134
Garcinia cuspidata King **B**
Garcinia eugeniaefolia Wall. 1135
Garcinia forbesii King 1136
Garcinia griffithii T. Anders. 1137
Garcinia hombroniana Pierre 1138
Garcinia nervosa Miq. 1139
Garcinia nigrolineata Pierre 1140
Garcinia parvifolia Miq. 1141
Garcinia rostrata Benth. 1143
Gardenia griffithii Hook. f. 2109
Gardenia speciosa Hook. **C**
Gardenia tubifera Wall. 2110
Gardeniopsis longifolia Miq. 2111
Gastrodia javanica Lindl. 1857
Gelonium bifarium Roxb. 950
Gelonium multiflorum Juss. 950
Genianthus maingayi Hook. f. 433
Geophila hirta Miq. 2112
Geophila pilosa Pears. 2112
Geunsia farinosa Bl. **B**
Geunsia reevesii Wall. **D**
Gironniera nervosa Planch. 2402
Gironniera parvifolia Planch. 2403
Gironniera subaequalis Planch. 2404
Globba leucantha Miq. 2494
Globba panicoides Miq. 2495
Globba uliginosa Miq. 2495
Glochidion brunneum Hook. f. 899
Glochidion coronatum Hook. f. **B**
Glochidion desmocarpum Hook. f. 911
Glochidion desmogyne Hook. f. **E**
Glochidion goniocarpum Hook. f. 899
Glochidion insulare Hook. f. **B**
Glochidion laevigatum Hook. f. 902
Glochidion leiostylum Kurz 907
Glochidion littorale Bl. 904
Glochidion microbotrys Hook. f. 905
Glochidion superbum Baill. 910
Glycosmis pentaphylla Corr. **B**
Gmelina hystrix Kurz 2430
Gmelina villosa Roxb. 2429
Gnetum edule Bl. 185
Gnetum funiculare Bl. 186
Gnetum macrostachyum Hook. f. 187
Gnetum neglectum Bl. 188
Gomphandra lanceolata Kurz 1168a
Gomphandra penangiana Wall. 168
Gomphia hookeri var. *corymbosa* 1705
Gomphia hookeri Planch. 1704
Gomphia sumatrana Jack 1708
Goniophlebium verrucosum Wall. 60
Goniothalamus malayanus Hk. f. 295
Goniothalamus ridleyi King 296
Goniothalamus tapis Miq. 297
Gonocaryum longeracemosum King 1169
Gonystylus maingayi Hook. f. 995
Gordonia excelsa Bl. 2374
Grammatophyllum speciosum Bl. 1851
Grewia fibrocarpa Mast. **B**
Grewia latifolia Mast. 2390
Grewia umbellata Roxb. 2389
Guettarda speciosa L. 2113
Guioa pleuropteris Radlk. 2250
Guioa pubescens Radlk. 2251
Guioa squamosa Radl. **B**
Gymnogramme calomelanos 121

Gymnopteris presliana Hook.	**B**
Gymnopteris subrepanda Hook.	28
Gymnosiphon borneense Becc.	478
Gynochthodes coriacea Miq.	2114
Gynochthodes sublanceolata Miq.	2115
Gynotroches axillaris Miq.	2069
Gynura pseudochina DC.	573
Gynura sarmentosa DC.	574
Habenaria lacertifera Benth.	1890
Habenaria maingayi King	1890
Habenaria singapurensis Ridl.	1859
Halophila ovata Gaud.	1155
Hedyotis auricularia L.	2116
Hedyotis capitellata Wall.	2119
Hedyotis congesta Br.	2120
Hedyotis pinifolia Wall.	2125
Hedyotis vestita R. Br.	**B**
Helicia excelsa Bl.	2051
Helicia petiolaris Benn.	2052
Heliotropium indicum L.	473
Henslowia buxifolia Bl.	2243
Henslowia lobbiana DC.	2244
Heptapleurum avene Seem.	415
Heptapleurum cephalotes Clarke	412
Heptapleurum ellipticum Seem.	**E**
Heptapleurum hullettii King	414
Heptapleurum ridleyi King	417
Heptapleurum subulatum Seem.	416
Heritiera fomes Buch.Ham.	**B**
Heritiera littoralis Dryand.	2340
Heritiera sp.	2339
Herpestis monnieri H. Bk.	2294
Hetaeria obliqua Bl.	1861
Hibiscus surattensis L.	1407
Hibiscus tiliaceus L.	1408
Hippocratea cumingi Laws.	517
Hippocratea indica L.	521
Hiptage sericea Hook. f.	1403
Homalium grandiflorum Benth.	979
Homalomena coerulescens Jungh.	393
Homalomena griffithii Hook. f.	391
Homalomena kingii Hook. f.	391
Homalomena ovata Hook. f.	391
Homalomena paludosa Hook. f.	394
Homalomena pumila Hook. f.	392
Homalomena sagittifolia Jungh.	395
Homalomena singaporensis Regel.	**B**
Homolanthus populifolius Grah.	**D**
Hopea griffithii Kurz	770
Hopea mengarawan	771
Hopea micrantha Hook. f.	**B**
Hopea pierrei Hance	**B**
Hornstedtia conica Ridl.	2497
Hornstedtia leonurus Retz.	2498
Hornstedtia megalochilus Ridl.	2492
Hornstedtia scyphus Retz.	2499
Hoya coriacea Bl.	435
Hoya coronaria Bl.	436
Hoya diversifolia Bl.	437
Hoya finlaysonii Wall.	438
Hoya lacunosa Bl.	439
Hoya latifolia Don	440
Hoya obtusifolia Wight	441
Hoya parasitica Wall.	442
Hoya revoluta Wight	443
Humata angustata Wall.	64
Humata heterophylla Wall.	65
Humata parallela Wall.	67
Humata pedata Sw.	68
Humata sessilifolia Bl.	**B**
Hydnophytum formicarium Jack	2129
Hydrilla verticillata Casp.	1157
Hydrocotyle asiatica L.	2408
Hydrocotyle rotundifolia Roxb.	2410
Hygrophila quadrivalvis Nees	200
Hygrophila salicifolia Nees	202
Hylophila mollis Lindl.	1862
Hymenophyllum denticulatum Sw.	74
Hymenophyllum neesii Hook.	74
Hymenophyllum polyanthos	76
Hymenophyllum sp. (8938)	**E**
Hypericum japonicum L.	1164
Hypolytrum latifolium Rich.	705a
Hypolytrum proliferum Boeck.	705b
Hypserpa triflora Miers	1509
Hyptis brevipes Poit.	1181
Hyptis suaveolens Poit.	1183
Iguanura geonomaeformis Becc.	1962
Iguanura malaccensis Becc.	1962
Iguanura wallichiana Hook. f.	1962
Ilex cymosa Bl.	373
Ilex macrophylla Wall.	374
Illigera appendiculata Bl.	1149
Imperata arundinacea Cyrill.	1054
Imperata exaltata Brngn.	1053
Indigofera hirsuta L.	1310
Iodes oblonga Planch.	1170
Iodes velutina King	1171

Ipomoea angustifolia Jacq. 628
Ipomoea aqautica Forsk. 616
Ipomoea batatus L. **D**
Ipomoea biloba Forsk. 622
Ipomoea chryseides Ker. 627
Ipomoea coccinea **D**
Ipomoea denticulata Chois. 619
Ipomoea digitata L. 620
Ipomoea linifolia Bl. 628
Ipomoea palmata Forsk. 617
Ipomoea quamoclit L. **D**
Ipomoea sepiaria Koen. 624
Ipomoea tridentata Roth. 629
Irvingia malayana Oliv. 2318
Isachne australis R. Br. 1055
Isachne kunthiana Wt. 1056
Isachne miliacea Roth. 1057
Ischaemum ciliare Retz. 1059
Ischaemum macrurum 1063
Ischaemum magnum Rendle 1059
Ischaemum muticum L. 1060
Ischaemum rugosum Salisb. 1061
Ischaemum timorense Kth. 1062
Ixonanthes icosandra Jack 1177
Ixonanthes reticulata Jack 1178
Ixora amoena Vahl **E**
Ixora concinna R.Br. 2131
Ixora congesta Roxb. 2132
Ixora fulgens Roxb. 2134
Ixora opaca R. Br. 2135
Ixora parviflora Vahl **E**
Ixora pendula Jack 2135
Jackia ornata Wall. 2137
Jasminum bifarium Wall. 1719
Jasminum griffithii Clarke 1720
Jussiaea angustifolia Lmk. 1725
Jussiaea repens L. 1723
Jussiaea suffruticosa L. 1724
Justicia andrographioides Clarke 205
Justicia gendarussa L. **D**
Kadsura cauliflora Bl. 2290
Kadsura scandens Bl. 2290
Kibessa acuminata Decne. 1464
Kibessa echinata Jack 1464
Kokoona littoralis Laws. 515
Koompassia malaccensis Maing. 1316
Kopsia macrophylla 348
Korthalsia echinometra Becc. 1963
Korthalsia flagellaris Miq. 1967
Korthalsia polystachya Mart. 1965
Korthalsia scaphigera Mart. 1966
Kunstleria ridleyi Prain 1317
Kurrimia paniculata Wall. 510
Kurrimia pulcherrima Wall. 511
Kyllinga brevifolia Rottb. 647
Kyllinga cylindrica Nees 677
Kyllinga melanosperma Nees 665
Kyllinga monocephala Rottb. 663
Labisia pothoina Lindl. 1635
Lantana camara L. 2431
Lantana indica Roxb. 2432
Lasia heterophylla Schott 396
Lasianthera secundiflora Miq. 1175
Lasianthus appressus Hook. f. 2138
Lasianthus crinitus Hook. f. **E**
Lasianthus cyanocarpus 2141
Lasianthus densifolius Miq. 2142
Lasianthus ellipticus Wight 2143
Lasianthus griffithii Wight 2145
Lasianthus maingayi Hook. f. 2146
Lasianthus pterospermus Wight 2148
Lasianthus stipularis Bl. 2152
Lastrea appendiculata **E**
Lastrea crassifolia Bl. **B**
Lastrea fuscipes Wall. **E**
Lecananthus erubescens Jack 2154
Lecanopteris carnosa Bl. **B**
Lecanorchis malaccensis Ridl. 1863
Leea angulata Korth. 1244
Leea javanica Bl. 1245
Leea robusta Roxb. 1243
Leea rubra Bl. 1246
Leea sambucina Willd. 1245
Leersia hexandra Sw. 1063
Lemna paucicostata Hegelm. 1357
Lemna polyrhiza 1359
Lemna sp. 1358
Leonotis nepetaefolia R. Br. 1184
Leonurus sibiricus L. 1185
Lepionurus sylvestris Bl. 1730
Lepironia mucronata Rich. 706
Leptadenia reticulata Wight **C**
Leptaspis urceolata R. Br. 1065
Lettsomia tomentosa 605
Leucas linifolia Spr. 1186
Leucas zeylanica R. Br. 1187
Leuconotis griffithii Hook. f. 349
Leuconotis maingayi Dyer 350

Leucopogon malayanus Jack 819
Leucostegia parvula Wall. 66
Licuala acutifida Mart. **C**
Licuala ferruginea Becc. 1968
Licuala spinosa Wurmb 1969
Licuala triphylla Griff. 1970
Limacia kunstleri King 1505
Limacia velutina Miers 1511
Limnanthemum indicum Thw. 986
Limnophila conferta Benth. **B**
Limnophila pulcherrima Hook. f. 2300
Lindera malaccensis Hook. f. 1213
Lindera sp. **E**
Lindsaya borneensis Hook. 80
Lindsaya divergens Wall. 82
Lindsaya lancea 83
Lindsaya lanuginosa Wall. 110
Lindsaya repens Thw. 91
Lindsaya rigida Sm. **B**
Lindsaya trapeziformis Dry. **E**
Lindsaya walkerae Hook. 92
Linociera pauciflora var. *palembanica* 1718
Linostoma pauciflorum Griff. 2383
Linostoma scandens King 2382
Liparis disticha Lindl. 1866
Liparis elegans Lindl. 1864
Liparis nervosa Ridl. 1865
Liparis venosa Ridl. 1867
Lipocarpha argentea R. Br. 707
Lipocarpha microcephala Kunth 707
Lippia nodiflora Rich. 2433
Litobrochia incisa Thunb. 63
Litsea amara Bl. 1231
Litsea ferruginea Bl. 1221
Litsea grandis Bl. 1224
Litsea longipes "Meissn.?" **E**
Litsea myristicaefolia Wall. 1228
Litsea nitida Bl. **E**
Litsea panamonja Ham. **B**
Litsea penangiana Hook. f. **B**
Litsea petiolata Hook. f. 1219
Litsea polyantha Juss. **B**
Litsea salicifolia Roxb. **E**
Litsea zeylanica Nees 232
Livistona kingiana Becc. 1977
Lophatherum lehmanni Brngn. 1068
Lophopetalum curtisii King **B**
Lophopetalum fimbriatum Wight 519
Lophopetalum fuscescens Kurz. **B**
Loranthus albidus Bl. 1385
Loranthus ampullaceus Roxb. 1389
Loranthus coccineus Jack 1387
Loranthus crassus Hook. f. 1384
Loranthus ferrugineus Roxb. 1392
Loranthus lobbii Hook. f. 1382
Loranthus longiflorus Desr. 1383
Loranthus maingayi Hook. f. 1386
Loranthus pentandrus L. 1384
Loranthus retusus Jack 1390
Lucaena glauca Benth. 1318
Lucinaea morinda DC. 2156
Ludwigia prostrata Roxb. 1727
Lumnitzera coccinea W. & A. 537
Lumnitzera racemosa Willd. 538
Luvunga eleutheranthera Dalz. 2235
Luvunga scandens Ham 2235
Lycopodium cernuum L. 94
Lycopodium nummulariifolium Bl. 70
Lycopodium phlegmaria L. 71
Lycopodium squarrosum Forst. 72
Lycopodium taxifolium Sw. **E**
Lygodium circinnatum Sw. 95
Lygodium flexuosum L. 96
Lygodium microphyllum R. Br. 99
Maba buxifolia Pers. 795
Macaranga hypoleuca Muell. 921
Macaranga javanica Muell. 918
Macaranga lowii King 922
Macaranga megaphylla Muell. 916
Macaranga populifolia Muell. 915
Macaranga trichocarpa Muell. 925
Macaranga triloba Muell. 926
Machilus rimosus Bl. **B**
Macodes petola Lindl. 1869
Maesa indica L. **B**
Maesa ramentacea DC. 1636
Magnolia maingayi King 1400
Mallotus barbatus Muell. **C**
Mallotus cochinchinensis Lour. 928
Mallotus macrostachyus Muell. 927
Mallotus penangensis Muell. 929
Mallotus philippinensis Muell. **C**
Mallotus vernicosus Hook. f. 865
Mangifera foetida Lour. 254
Mangifera kemanga Bl. 253
Mangifera lagenifera Griff. 256
Mangifera odorata Griff. 258

Mangifera sclerophylla Hook. f. 255
Mapania humilis Naves. 709
Mapania longa Clarke 710
Mapania multispicata Clarke 711
Mapania palustris Benth. 714
Mariscus albescens Gaud. 662
Mariscus cyperinus Vahl 651
Mariscus dregeanus Kunth 656
Mariscus microcephalus Presl 648
Mariscus sieberianus Nees 652
Marlea ebenacea C.B. Clarke 229a
Marlea griffithii C.B. Clarke 230
Marlea nobilis C.B. Clarke 231
Marlea sp. 229b
Marumia rhodocarpa Jack 1429
Mastixia junghuhnii Clarke 633
Matthaea sancta Bl. 1517
Mazus rugosus Lour. 2310
Medinilla hasseltii Bl. 1431
Medinilla macrocarpa Bl. 1432
Medinillopsis sessiliflora Cogn. 1461
Megistostigma malaccense Hook. f. 932
Melaleuca leucadendron L. 1689
Melanochyla auriculata Hook. f. 259
Melanorrhoea maingayi Hook. f. 252
Melastoma decemfidum Jack **C**
Melastoma molle Wall. **C**
Melastoma polyanthum 1433
Meliosma elliptica Hook. f. 2241
Meliosma lanceolata Bl. 2239
Meliosma ridleyi King 2240
Melochia corchorifolia L. 2343
Melodinus micranthus Hook. f. 351
Melodinus orientalis Bl. **B**
Melodorum cylindricum Maingay 322
Melodorum elegans Hk. f. 302
Melodorum fulgens Hk. f. 284
Melodorum lanuginosum Hk. f. 285
Melodorum latifolium Hk. f. 286
Melodorum manubriatum Hk. f. 287
Melodorum pisocarpum Hk. f. 302
Melodorum prismaticum Hk. f. 322
Memecylon acuminatum Bl. 1434
Memecylon amplexicaule Roxb. 1435
Memecylon grande Retz. 1451
Memecylon heteropleurum Bl. 1441
Memecylon laevigatum Bl. 1448
Memecylon myrsinoides Bl. 1448
Memecylon pauciflorum Bl. **B**
Memecylon sp. (3840) **E**
Memecylon sp. (4436) **E**
Memecylon sp. (5753) 1443
Memecylon sp. (6788) 1445
Meniscium cuspidatum Bl. 127
Meniscium triphyllum Sw. 129
Metroxylon rumphii Mart. **D**
Metroxylon sagus Rottb. **D**
Mezoneuron sumatranum W. & Arn. 268
Mezzettia leptopoda Oliver 300
Microdesmis caseariifolia Planch. 934
Microlepia speluncae L. 105
Micromelum hirsutum Oliv. **B**
Microsaccus javensis Bl. 1875
Microstylis congesta Rchb. f. 1870
Microstylis micrantha Hook. f. 1871
Mikania scandens Willd. 575
Millettia atropurpurea Benth. 1319
Millettia eriantha Benth. 1320
Millettia maingayi Bak. 1321
Mimosa pudica L. 1325
Mimosa sepiaria Benth. 1322
Mimusops hexandra Roxb. 2276
Mischocarpus fuscescens Bl. 2253
Mischocarpus sundaicus Bl. 2254
Modecca populifolia Bl. **E**
Modecca singaporeana Mast. 2002
Mollugo stricta L. 226
Monochoria hastaefolia Presl 2045
Monochoria vaginalis Presl 2046
Monogramme trichoidea Sm. 108
Morinda citrifolia L. 2157
Morinda persicaefolia Ham. **E**
Morinda sp. 2159
Morinda sp. "sulong akar darat" **E**
Morinda tinctoria Roxb. **B**
Morinda umbellata L. 2160
Mucuna biplicata Teysm. **B**
Mucuna gigantea DC. 1326
Mussaenda glabra Vahl 2161
Mussaenda variabilis Hemsl. **E**
Myrialepis scortechinii Becc 1971
Myrica nagi Thunb. 1581
Myristica bivalvis Hook. f. 1589
Myristica brachiata King **B**
Myristica bracteata DC. 1615
Myristica cantleyi Hook. f. 1606
Myristica cinnamomea king 1610
Myristica conferta King 1598

Myristica crassa King 1610
Myristica crassifolia Hook. f. 1586
Myristica elliptica Wall. 1611
Myristica farquhariana Wall. 1584a,b
Myristica ferruginea Wall. 1583
Myristica forbesii King 1585
Myristica glauca Bl. 1601
Myristica glaucescens Hook. f. 1607
Myristica hookeriana Wall. 1603
Myristica iners Bl. 1612
Myristica intermedia Bl. 1604
Myristica irya Gaertn. 1588
Myristica laurina Bl. 1606
Myristica longifolia Wall. 1600
Myristica lowiana King 1613
Myristica majuscula King 1590b
Myristica oblongifolia King **B**
Myristica pendulina Hook. **D**
Myristica polysphaerula Hook. f. 1590a
Myristica succosa King 1593
Myristica superba Hook. f. 1594
Myristica wallichii Hook. f. 1596
Myristica wrayi King 1601
Myrmecodia echinata Jack 2165
Myrsine capitellata Wall. **E**
Najas minor All. 1696
Neesia synandra Mast. 467
Nenga wendlandiana var. *malaccensis* 1972
Nepenthes albomarginata Lobb **C**
Nepenthes ampullaria Jack 1697
Nepenthes gracilis 1698
Nepenthes phyllamphora Willd. 1701
Nepenthes rafflesiana Jack 1700
Nepenthes reinwardtii Miq. **B**
Nephelaphyllum pulchrum Bl. 1876
Nephelium eriopetalum Miq. 2255
Nephelium glabrum Noronha **B**
Nephelium lappaceum L. 2256
Nephelium rufescens Hiern 2257
Nephrodium aridum Don 31
Nephrodium cucullatum Bl. 155
Nephrodium heterocarpon Bl. 153
Nephrodium latebrosum Kze. **E**
Nephrodium molle Desv. ?? 33
Nephrodium molle Desv. var. *procurrens* **E**
Nephrodium molle Desv. var. *didymosorum* 33
Nephrodium molle Desv. var. *amboinense* 34
Nephrodium pennigerum Bl. **B**
Nephrodium polycarpum 154
Nephrodium tectum Wall. 33
Nephrodium truncatum Presl 126
Nephrodium unitum L. 39
Nephrodium urophyllum Wall. 128
Nephrolepis acuta Presl 111
Nephrolepis duffii **E**
Nephrolepis exaltata L. 112
Nephrolepis volubilis J. Sm. 114
Neptunia oleracea Lour. 1327
Neuwiedia curtisii Rolfe 1880
Neuwiedia griffithii Rchb. f. 1878
Neuwiedia lindleyi Rolfe 1879
Niphobolus acrostichoides Sw. 140
Niphobolus adnascens Sw. 139
Niphobolus penangianus Hook. **B**
Norrisia malaccensis Garden. 1376
Nypa fruticans Wurmb 1973
Oberonia anceps Lindl. 1881
Oberonia ciliolata Hook. f. 1881
Oberonia dissitiflora Ridl. 1883
Oberonia lunata Lindl. 1886
Oberonia miniata Lindl. 1887
Ochanostachys amentacea Oliv. 1711
Ochlandra ridleyi Gamble 1098
Ochthocharis borneensis Cogn. 1456
Ochthocharis javanica Bl. 1457
Ochthocharis paniculata Korth. 1458
Ocimum basilicum L. 1189
Oldenlandia corymbosa L. 2121
Oldenlandia dichotoma Retz. 2122
Oldenlandia diffusa L. 2123
Oldenlandia trinervia Retz. 2127
Olea maritima Wall. 1722
Oncosperma horridum Scheff. 1975
Oncosperma tigillarium Griff. 1976
Ophioglossum nudicaule L. 115
Ophioglossum pendulum L. 116
Ophiorrhiza harrisiana Heyne 2171
Orania macrocladus Mart. 1976
Ormosia macrodisca Bak. 1331
Ormosia microsperma Bak. 1332
Ormosia parvifolia Bak. 1330
Orophea hastata King 303
Osmelium maingayi King 979
Ostodes macrophylla 896

Ostodes muricata var. *minor* **C**
Oxalis corniculata L. 1931
Oxyanthera decurva Hook. f. 1911
Oxyanthera elata Hook. f. 1910
Oxymitra affinis King **B**
Oxymitra calycina King 290
Pachycentria glauca Triana 1446
Pachycentria macrorhiza Becc. 1459
Pachycentria tuberculata 1459
Pachynocarpus wallichii King 786
Paederia foetida L. 2177
Paederia tomentosa Bl. 2176
Paederia verticillata 2177
Pandanus atrocarpus Griff. 1993
Pandanus fascicularis Lam. 1996
Pandanus houllettei Carr. 1994
Pandanus laevis Rumph **D**
Pandanus ornatus Kurz 1995
Pandanus parvus 1997
Pandanus sp. "stems slender..." **E**
Pandanus sp. near P. helicopus **E**
Pandanus sp. "A tall plant..." **E**
Panicum auritum Presl 1074
Panicum colonum L. 1033
Panicum crus-galli L. 1034
Panicum distachyum L. 1006
Panicum indicum L. 1094
Panicum latifolium L. 997
Panicum luzonense Presl 1076
Panicum myosuroides Br. 1095
Panicum nodosum Kth. 1073
Panicum ovalifolium Poir. 1075
Panicum patens L. 1017
Panicum pilipes Nees 1018
Panicum repens L. 1078
Panicum sarmentosum Roxb. 1079
Parameria glandulifera Benth. 353
Parameria polyneura Benth. 354
Paramignya grandiflora Oliv. **B**
Paramignya longispina Hook. f. 2236
Paranephelium macrophyllum King 2259
Parastemon urophyllus DC. 533
Parinarium costatum Bl. 534
Parinarium griffithianum Benth. 532
Parinarium nitidum Hook. f. 531
Parinarium oblongifolium Hook. f. 535
Parishia maingayi Hook. f. 263
Parishia paucijuga Engl. 264
Parishia pubescens Hook. f. 262
Parkia speciosa Hassk. 1334
Parsonsia spiralis Wall. 355
Paspalum conjugatum Berg. 1080
Paspalum distichum Burm. 1085
Paspalum longiflorum Retz. 1026/1031
Paspalum sanguinale Lam. 1023/1029/1030a,b
Paspalum scrobiculatum L. 1084
Passiflora foetida 2003
Passiflora minima 2005
Passiflora quadrangularis **D**
Passiflora suberosa 2005
Payena costata King **E**
Payena leerii Benth. 2279
Peliosanthes violacea Wall. 1368
Peliosanthes viridis Ridl. 1368
Pellacalyx axillaris Korth. 2071
Pellacalyx saccardianus Scort. 2072
Pellionia javanica Wedd. **C**
Peltophorum ferrugineum Benth. 1335
Pemphis acidula Forst. 1397
Pentace triptera Mast. 2391
Pentapetes phoenicea L. **D**
Pentaphragma begoniaefolium Wall. 2008
Peperomia exigua Miq. 2011
Peristrophe acuminata Nees 206
Peristrophe montana Nees 207
Perotis latifolia Ait 1088
Petunga venulosa Hook. 2130
Phaeanthus lucidus Oliver **B**
Phaeanthus nutans Hk. f. 305
Philydrum lanuginosum 2009
Phoebe declinata Nees 1235
Phoebe opaca Bl. 1236
Phoebe sumatrana Miq. **E**
Phoenix sp. **E**
Phrynium griffithii Bak. 1418
Phyllanthus coriaceus Wall. **B**
Phyllanthus distichus Muell. **D**
Phyllanthus madraspatensis L. **B**
Phyllanthus niruri Wall. 936
Phyllanthus pectinatus Hook. f. 938
Phyllanthus pulcher Wall. **D**
Physostelma wallichii Wight 434
Phytocrene bracteata Wall. 1172
Phytocrene oblonga Wall. **B**
Pilea muscosa Lindl. 2415
Pimelandra wallichii DC. 1626

Pinanga coronata Bl. **B**
Pinanga disticha Bl. 1978
Pinanga malaiana Scheff. 1980
Pinanga paradoxa Scheff.? **B**
Pinanga polymorpha Becc. **C**
Piper caninum Bl. 2012
Piper chaba L. 2013
Piper maingayi Hook. f. 2016
Piper miniatum Bl. 2018
Piper muricatum Bl. 2019
Piper pedicellosum Wall. 2021
Piper porphyrophyllum N.E. Br. 2022
Piper sarmentosum 2025
Piper sumatrana Cas. 2024
Pipturus mollisimus Wedd. 2413
Pistia stratiotes L. 397
Pithecellobium angulatum Benth. 1259
Pithecellobium bubalinum Benth. **B**
Pithecellobium clypearia Benth. 1259
Pithecellobium confertum Benth. 1257
Pithecellobium contortum Mart. 1260
Pithecellobium ellipticum Hassk. 1261
Pithecellobium lobatum Benth. 1263
Pithecellobium microcarpum Benth.1264
Pittosporum ferrugineum Ait 2027
Plagiostachys lateralis Ridl. 2500
Plantago major L. 2028
Platycerium biforme Bl. 22
Platycerium grande Sm. **C**
Platyclinis longifolia Hemsl. 1829
Plectocomia griffithii Becc. 1984
Pleocnemia gigantea Bl. **B**
Pleopeltis angustata Sw. 138
Pleopeltis longifolia Mett. 79
Pleopeltis nigrescens Bl. 119
Pleopeltis phymatodes L. 120
Pleopeltis punctata L. 108
Pleopeltis sinuosa Wall. 110
Pleopeltis stenophylla Bl. **B**
Plocoglottis foetida Ridl. 1892
Plocoglottis javanica Bl. 1893
Plocoglottis porphyrophylla Ridl. 1894
Pluchea indica Less. 577
Plumbago zeylanica L. 2028
Podocarpus neglectus Bl. **B**
Podocarpus neriifolia Don **B**
Podochilus microphyllus Lindl. 1895
Pogonanthera reflexa Bl. 1462
Pogonia punctata Bl. 1877
Pollia sorzogonesis Endl. 552
Polyalthia bullata King 307
Polyalthia macropoda King 315
Polyalthia scortechinii King 316
Polyalthia sumatrana King 318
Polybotrya appendiculata Willd. 26
Polygala brachystachya Bl. 2029
Polygonum barbatum L. 2041
Polygonum flaccidum Meissn. **B**
Polygonum pedunculare Wall. **B**
Polyosma fragrans Benn. **B**
Polyosma ridleyi King 2289
Polypodium adspersum Bl. **C**
Polypodium decorum Brack. 35
Polypodium setigerum Bl. **C**
Polypodium streptophyllum Bak. **B**
Polystachya singapurensis Ridl. 1896
Polytrias praemorsa Hack. 1091
Pometia alnifolia Radlk. 2260
Pometia gracilis King 2260
Pongamia glabra Vent. 1336
Popowia ramosissima Hk. f. 320
Popowia tomentosa Maing. 321
Portulaca oleracea L. 2047
Portulaca quadrifida L. 2049
Pothos curtisii Hook. f. 396
Pouzolzia indica L. 2419
Pouzolzia pentandra Benn. **E**
Pratia begonifolia Lindl. 498
Premna cordifolia Roxb. **B**
Premna coriacea Clarke **E**
Premna corymbosa Roth. 2435
Premna flavescens var. *rubens* **E**
Premna integrifolia var. *angustior* 2435
Premna parasitica Bl. 2437
Prismatomeris albidiflora Thw. 2182
Prosaptia contigua Sw. **B**
Psilotum complanatum Sw. 130
Psilotum flaccidum Wall. 130
Psychotria angulata Korth. 2183
Psychotria griffithii Hook. f. 2185
Psychotria helferiana Kurz. 2186
Psychotria maingayi Hook. f. 2187
Psychotria malayana Jack 2188
Psychotria montana var. *tabacifolia* Wall. **B**
Psychotria morindaeflora Wall. **B**
Psychotria ovoidea Wall. 2190
Psychotria polycarpa Miq. 2189

Psychotria sarmentosa Bl. 2194
Psychotria sp. "green flowers" **E**
Psychotria sp. "grey green fruits" **E**
Psychotria stipulacea 2188
Pteleocarpa malaccensis Oliv. 474
Pteris aqilina L. 132
Pteris ensiformis Burm. 134
Pteris longifolia L. 137
Pterisanthes coriacea Korth. 2470
Pternandra capitellata Jack 1463
Pternandra coerulescens Jack 1463
Pternandra paniculata Benth. 1463
Pterospermum blumeanum Korth. 2346
Pterospermum diversifolium Bl. 2345
Ptychopyxis costata Miq. 943
Ptychoraphis singaporensis Becc. 1985
Pupalia atropurpurea Miq. **C**
Pycreus nitens Nees 669
Pycreus polystachyus Beauv. 668
Pygeum lanceolatum Hook. f. 2079
Pygeum maingayi Hook. f. 2078
Pygeum persimile Kurz 2077
Pygeum polystachyum Hook. f. 2079
Pyrenaria acuminata Planch. 2375
Pyrenaria kunstleri King **B**
Quercus bennettii Miq. 961
Quercus cantleyana 962
Quercus conocarpa Oudem. 963
Quercus cyclophora Endl. 964
Quercus encleisacarpa Korth. 966
Quercus hystrix Korth. 968
Quercus lamponga Miq. 971
Quercus lucida Roxb. 970
Quercus oidocarpa Korth. **B**
Quercus spicata var. *gravipes* 965
Quercus sundaica 971
Quercus wallichiana Lindl. 972
Randia angulosa Wall. **E**
Randia anisophylla Jack 2179
Randia densiflora Benth. 2082
Randia fasciculata DC. **B**
Randia longiflora Lam. 2173
Randia macrophylla Br. 2197
Raphidophora gracilipes Hook. f. **B**
Raphidophora lobbii Schott 400
Raphidophora minor Hook. f. 402
Raphistemma pulchellum Wall. **D**
Remirea maritima Aubl. 666
Renanthera alba Ridl. 1743
Renanthera elongata Lindl. 1899
Renanthera maingayi Hook. f. 1744
Renantherella histrionica Ridl. 1900
Rhizophora conjugata L. 2073
Rhizophora mucronata Lmk. 2074
Rhodamnia trinervia Bl. 1690
Rhododendron javanicum var. *tubiflorum* 820
Rhododendron lampongum Miq. 820
Rhodomyrtus tomentosus Wight 1691
Rhynchospora glauca var. *chinensis* 721
Rhynchospora malasica Clarke 719
Rhynchospora wallichiana Kunth 720
Rhynchospra aurea Vahl 718
Rhyncostylis gigantea Ridl. 1901
Rottboellia glandulosa Trin. 1070
Roucheria griffithiana Planch. 1369
Rourea acuminata Hook. f. 602
Rourea concolor Bl. 601
Rourea fulgens Planch. 600
Rourea parallela Planch. 601
Rourea pulchella Planch. 602
Rourea rugosa Planch. 603
Rourea similis Bl. 601
Rubus glomeratus Bl. 2080a
Rubus moluccanus L. 2080b
Ruellia repens L. 209
Ryparosa hullettii King 982
Saccolabium perpusillum Hook. f. 1904
Salacia flavescens Kurz 526
Salacia grandiflora Kurz 524
Salacia latifolia Wall. 522
Salacia lobbii Laws. 517
Salacia longiflora Hook. **E**
Salacia prinoides DC. 522
Salacia sp. 526
Salacia viminea Wall. 527
Salomonia aphylla Griff. **B**
Salomonia cantoniensis Lour. 2031
Salomonia oblongifolia Dec. **B**
Sandoricum indicum Lmk. 1499
Sandoricum radiatum King 1499
Santiria apiculata Benn. 488
Santiria laevigata Bl. 491
Santiria laxa King 486
Santiria multiflora Benn. 493
Sapium discolor Muell. 945
Sapium indicum Roxb. 946
Saprosma sp. **E**

Sarauja tristyla Miq. 218
Sarcanthus halophilus 1783
Sarcocephalus junghuhnii Miq. 2166
Sarcocephalus maingayi Hav. 2170
Sarcocephalus sp. **E**
Sarcocephalus subditus Miq. 2167
Sarcochilus adnatus Ridl. 1872
Sarcochilus caligaris Ridl. 1898
Sarcolobus globosus Wall. 444
Sauropus albicans Bl. 947
Scaevola koenigii Vahl 996
Schismatoglottis longipes Miq. 404
Schismatoglottis wallichii Hook. f. 405
Schizaea dichotoma Sw. 143
Schizaea digitata Sw. 144
Schizoloma ensifolium Sw. 84
Schizoloma heterophylla Dry. 85
Schizoloma lobata Poir. 81
Schizoloma media R. Br. **E**
Schoenus calostachyus Poir. 722
Sciaphila affinis Becc. 2396
Scindapsus hederaceus Schott 406
Scindapsus pictus Hassk. 407
Scirpodendron costatum Kurz 723
Scirpus grossus L. f. 724
Scirpus mucronatus L. 725
Scleria bancana Miq. 729
Scleria biflora Roxb. 727
Scleria caricina Benth. 728
Scleria levis Retz. 732
Scleria multifoliata Boeck. 734
Scleria oryzoides Presl 733
Scleria radula Hance 737
Scleria ridleyi Clarke 730
Scleria sumatrensis Retz. 736
Scleria zeylanica Poir. 735
Scleropyrum maingayi Hook. f. 2245
Scolopia rhinanthera Clos. 984
Scoparia dulcis L. 2312
Scorodocarpus borneensis Becc. 1713
Scyphiphora hydrophyllacea Gaertn. 2199
Sebastiania chamalaea Muell. 948
Selaginella atroviridis Spring. 147
Selaginella plumosa Bak. **E**
Selaginella sp. (6547) **E**
Selaginella trichobasis Bak. 149
Selaginella willdenowii Bak. 151
Seliguea membranacea Hook. **B**
Selliguea feei Hook. 152
Serianthes grandiflora Benth. 1344
Sesamum indicum L. 2006
Sesbania paludosa Roxb. **B**
Sesuvium portulacastrum L. 228
Setaria glauca Beauv. 1102
Shorea bracteolata King 774
Shorea gibbosa Brandis 777
Shorea gratissima Dyer 778
Shorea leprosula Miq. 779
Shorea macroptera Dyer 780
Shorea parvifolia Dyer 782
Shorea pauciflora King 783
Sida carpinifolia L. 1409
Sida rhombifolia L. 1411
Sideroxylon ferrugineum Hook. 2284
Sideroxylon maingayi Clarke 2283
Sideroxylon malaccense Clarke 2285
Sindora intermedia Bak. 1346
Sindora wallichiana Benth. 1346
Sloanea javanica Miq. 818
Sloetia sideroxylon Teysm. 1580
Smilax barbata Wall. 2321
Smilax calophylla Wall. 2322
Smilax megacarpa Roxb. 2325
Smilax myosotiflora A. DC. 2326
Smythea pacifica Seem. 2055
Smythea reticulata King 2055
Solanum aculeatissimum Jacq. **B**
Solanum biflorum Lour. **C**
Solanum melongena L. **D**
Solanum nigrum L. 2329
Solanum sarmentosum Nees 2330
Solanum torvum Sw. 2331
Sonerila heterophylla Herb. **B**
Sonerila moluccana Roxb. 1467
Sonerila obliqua Korth. 1466
Sonneratia acida L. 2333
Sonneratia alba Smith 2332
Sonneratia griffithii Kurz 2332
Spathoglottis plicata Bl. 1906
Spatholobus ferrugineus Benth. 1347
Spatholobus maingayi Prain 1348
Spatholobus ridleyi Prain 1349
Spermacoce hispida L. 2084
Spermacoce ocymoides Burm. **E**
Spermacoce scaberrima Bl. 2103
Sphaeranthus africanus L. 581
Sphaerocaryum elegans Nees 1104

Sphenodesme pentandra Jack	2440
Spilanthes acmella L.	554
Sporobolus indicus L.	1105a
Stachytarpheta indica Vahl	2442
Stachytarpheta mutabilis	2444
Stelechocarpus burahol Hook. f.	**C**
Stemona tuberosa Lour.	**B**
Stenochlaena palustris L.	156
Stephania hernandifolia Wall.	**B**
Stephanotis maingayi Hook. f.	446
Sterculia laevis Wall.	2350
Sterculia macrophylla Vent.	2353
Sterculia parviflora Vent.	2354
Sterculia rubiginosa Vent.	2355
Sterculia scaphigera	2347
Stereospermum chelonoides DC.	461
Stereospermum hyposticta Miq.	459
Streblus asper Lour.	**B**
Streptocaulon wallichii Wight	**C**
Striga lutea Lour.	2314
Strombosia rotundifolia King	1714
Strophanthes brevicaudatus Wight	357
Strophanthes dichotomus DC.	356
Strychnos malaccensis Benth.	1377
Strychnos pubescens Clarke	1377
Strychnos tieute Bl.	1378
Styrax benzoin Dryand.	2357
Styrax crotonoides Clarke	2359
Susum anthelminticum Bl.	1147
Symplocos adenophylla Wall.	2359
Symplocos celastrifolia Griff.	2361
Symplocos fasciculata Zoll.	2362
Symplocos rigida Clarke	2360
Symplocos rubiginosa Wall.	2365
Symplocos sp.	2363
Symplocos spicata Roxb.	**B**
Synedrella nodiflora Gaertn.	582
Syngramma alismifolia Hook.	157
Syngramma wallichii Hook.	157
Tabernaemontana coronaria Roxb.	**D**
Tabernaemontana corymbosa Roxb.	358
Tabernaemontana malaccensis Hook. f.	359
Tacca cristata Jack	2366
Taeniophyllum serrula Hook. f.	1909
Taenitis blechnoides Willd.	158
Talauma elegans Miq.	1399
Talauma lanigera Hook. f.	1398
Tarrietia simplicifolia Mast.	2341
Tephrosia candida DC.	**D**
Tephrosia hookeriana	1337
Terminalia catappa L.	540
Terminalia phellocarpa King	541
Terminalia subspathulata King	542
Ternstroemia penangiana Choisy	2378/2378
Tetracera assa Dec.	750
Tetracera assa var.	747
Tetracera euryanda Vah.	748
Tetracera fagifolia Bl.	749
Tetracera macrophylla Wall.	750
Tetramerista glabra Miq.	2368
Thamnopteris nidus L.	17
Thelasis elongata Bl.	1912
Thespesia populnea Corr.	1412
Thismia aseroe Becc.	479
Thismia fumida Ridl.	480
Thoracostachyum bancanum	738
Thottea dependens	420
Thottea grandiflora Rottb.	421
Thrixspermum arachnites Rchb. f.	1915
Thrixspermum calceolus Rchb. f.	1915
Thrixspermum lilacinum Rchb. f.	1914
Thrixspermum notabile Ridl.	1913
Thuarea sarmentosa Pers.	1109
Thunbergia alata Bojer.	214
Thunbergia fragrans Roxb.	216
Timonius finlaysonianus Wall.	2207
Timonius jambosella Thw.	2208
Timonius rumphii DC.	2209
Tinomiscium petiolare Miers	1513
Tinospora cordifolia Miers	**B**
Torenia mucronulata Benth.	**E**
Torenia polygonoides Benth.	2296
Tournefortia wallichii DC.	475
Toxocarpus griffithii Don	447
Trema angustifolia Bl.	2405
Trema orientalis Bl.	2407
Trema timorensis Bl.	2406
Trichomanes digitatum Sw.	**B**
Trichomanes filicula Bory.	**E**
Trichomanes javanicum Bl.	172
Trichomanes maximum Bl.	**B**
Trichomanes motleyi v.d. Bosch	175
Trichomanes muscoides Sw.	173
Trichomanes parviflorum Poir.	**E**
Trichomanes rigidum Sw.	176
Trichosanthes celebica Cogn.	640

Trichosanthes wallichiana Wight	641
Trichosanthes wawraei Cogn.	642
Tridax procumbens L.	583
Trigonachras acuta Radlk.	2261
Trigoniastrum hypoleucum Miq.	2395
Trigonochlamys griffithii Hook. f.	490
Trigonostemon longifolius Baill.	952
Triomma malaccensis Griff.	494
Tristania merguensis Griff.	1692
Tristania whitiana Griff.	1694
Tristellateia australasiae Rich.	1404
Triumfetta pilosa Roth.	**E**
Triumfetta rhomboidea Jacq.	2394
Turpinia pomifera DC.	2335
Tylophora tenuis Wall.	450
Tylophora wallichii ? Hook. f.	449
Typhonium roxburghii Schott	409
Uncaria attenuata Korth.	2212
Uncaria ferrea DC.	**B**
Uncaria gambir Roxb.	2215
Uncaria glabrata DC.	2216
Uncaria jasminiflora Wall.	2213
Uncaria ovata Hook. f.	**B**
Uncaria pedicellata Roxb.	2214
Uncaria pteropoda Miq.	2217
Uncaria roxburghiana Korth.	2218
Unona dasymaschala Bl.	281
Unona desmantha Hk. f.	308
Unona discolor Vahl	280
Unona dumosa Roxb.	282
Unona longiflora Roxb.	**B**
Unona stenopetala	**B**
Uraria crinita Desv.	1353
Urceola brachysepala Hook. f.	358
Urceola lucida Benth.	360
Urceola maingayi Hook. f.	361
Urceola malaccensis Hook. f.	362
Urceola torulosa Hook. f.	363
Urena lobata L.	1414
Urophyllum glabrum Bl.	2221
Urophyllum griffithianum Wt.	2222
Urophyllum hirsutum Wt.	2223
Urophyllum streptopodium Wall.	2226
Utricularia affinis var. *griffithii*	1366
Utricularia bifida L.	1362
Utricularia exoleta Br.	1364
Utricularia flexuosa Vahl	1361
Utricularia racemosa Wall.	1363
Uvaria dulcis Dunal.	**B**
Uvaria hirsuta Jack	327
Uvaria lobbiana Hk. f.	329
Uvaria macrophylla Roxb.	324
Uvaria ridleyi King	328
Uvaria subrepanda Wall.	329
Vaccinium acuminatissimum Miq.	821
Vaccinium bancanum Miq.	823
Vaccinium malaccense Wight	822
Vallaris maingayi Hook. f.	345
Vandellia crustacea Benth.	2304
Vandellia hirsuta Benth.	2309
Vandellia pedunculata Griff.	2301
Vandellia scabra Benth.	2306
Vanilla griffithii Rchb. f.	1924
Vatica ridleyana Brandis	786/787
Ventilago leiocarpa Benth.	2056
Ventilago madraspatana Gaertn.	**B**
Vernonia arborea Ham.	584
Vernonia chinensis L.	586
Vernonia cinerea Less.	585
Vernonia scandens DC.	562
Viburnum sambucinum Reinwardt	506
Vigna retusa Walp.	1354
Vinca rosea L.	342
Viscum articulatum Burm.	1394
Viscum oreientale Willd.	1395
Vitex gamosepala	2447
Vitex negundo L.	2448
Vitex pubescens Vahl	2449
Vitex trifolia L.	2450
Vitex vestita Wall.	2451
Vitis cerasiformis Teysm.	2464
Vitis cinnamomea Wall.	2455
Vitis elegans Kurz	2456
Vitis furcata Laws.	2466
Vitis glaberrima Wall.	2464
Vitis gracilis Wall.	2457
Vitis japonica Thunb.	**B**
Vitis lawsoni King	2473
Vitis macrostachya Miq.	2467
Vitis mollissima Wall.	2460
Vitis novemfolia Wall.	2461
Vitis polythyrsa Miq.	2458
Vitis repens W. & Arn.	2465
Vitis sp.	**E**
Vitis trifolia L.	2462
Vittaria elongata Sw.	181
Vittaria scolopendrina Presl	181
Vrydagzynea albida Bl.	1925

Vrydagzynea lancifolia Ridl. 1926
Vrydagzynea tristriata Ridl. 1927
Webera fragrans Bl. 2202
Webera grandifolia Hook. f. 2204
Webera mollis Wall. 2203
Webera sp. (5961) **E**
Webera sp. (6147) 2205
Wedelia biflora DC. 587
Wikstroemia indica **C**
Willughbeia coriacea Wall. 368
Willughbeia firma Bl. 368
Willughbeia flavescens Dyer 365
Willughbeia grandiflora Dyer 370
Willughbeia sp. (6023) 367
Willughbeia tenuiflora Hook. f. 371
Wolffia arhiza Wimm. 1360
Wormia pulchella Jack 744
Wormia scortechinii King 742
Wormia sp. **E**
Wormia suffruticosa Griff. 746
Wormia tomentella Bl. 741
Xanthophyllum affine Korth. 2032
Xanthophyllum ellipticum Korth. 2034
Xanthophyllum kunstleri King 2039
Xanthophyllum obscurum Benn. 2037
Xanthophyllum palembanicum Miq. 2032
Xerospermum muricatum Radlk. 2264
Xerospermum wallichii King 2264
Ximenia americana L. 1716
Xylia dolabriformis Benth. **C**
Xylopia caudata Hk. f. 331a
Xylopia dicarpa Hook. f. 335
Xylopia ferruginea Hk. f. 332a
Xylopia magna Maingay 334
Xylopia malayana Hk. f. 335
Xylopia oxyantha Hk. f. 332b
Xylopia ridleyi King 275
Xyris anceps Lam. 2474
Xyris schoenoides Mart. 2475
Zalacca conferta Griff. 1961
Zalacca wallichiana Mart. **B**
Zanthoxylum ovalifolium Wight **B**
Zingiber gracile Jack **B**
Zingiber griffithii Bak. 2502
Zingiber puberula Ridl. 2503
Zingiber zerumbet Sm. 2504
Ziziphus calophylla Wall. 2057
Ziziphus elegans Wall. 2058
Ziziphus horsfieldi Miq. 2059
Ziziphus oenoplia Mill. 2060
Zornia diphylla Pers. 1356
Zoysia pungens Willd. 1114

APPENDIX B:

Species included by Ridley (1900) in the Flora of Singapore for which I have been unable to find any evidence of their occurrence in the wild within the Republic. The majority probably represent misapplied names rather than poorly localised collections. The name in bold type is that considered correct. This is preceded by the name used by Ridley, where it is different from the correct name. The number in square brackets represents the page number on which the species is found in Ridley (1900). A question mark indicates doubt concerning the species to which Ridley referred.

Acacia pennata Will. [76] = **Acacia pennata** (L.) Willd., Leguminosae.

Adinandra maculosa T. Anders. [48] = **Adinandra maculosa** T. Anders. *ex* Dyer, Theaceae.

Aganosma marginata Don [111] = **Aganosma marginata** (Roxb.) G. Don, Apocynaceae.

Agathis loranthifolia Salisb. [151] = **Agathis borneensis** Warb., Araucariaceae.

Albizzia lucida Benth. [76] = **Albizia lucidior** (Steud.) Nielsen, Leguminosae.

Alsodeia kunstleriana King [44] = **Rinorea horneri** (Korth.) Kuntze, Violaceae.

Alsodeia membranacea King [44] = **Rinorea macrophylla** (Decne.) Kuntze, Violaceae.

Antrophyum plantagineum Kaulf. [194] = **Antrophyum plantagineum** Kaulf., Pteridophyta.

Antrophyum reticulatum Kaulf. [194], Pteridophyta.

Aporusa ficifolia Baill. [137] = **Aporusa pseudo-ficifolia** P. & H., Euphorbiaceae.

Aporusa stellifera Hook. f. [137] = **Aporusa stellifera** Hook. *f.*, Euphorbiaceae.

Ardisia humilis Vahl [105], Myrsinaceae.

Artanema angustifolium Benth. [118], Scrophulariaceae.

Artocarpus peduncularis King [147] = **Artocarpus teysmannii** Miq., Moraceae.

Aspidium cicutorium Sw. [191] = **Tectaria coadunata** (J. Sm.) C. Chr., Pteridophyta.

Aspidium semibipinnatum Wall. [191] = **Tectaria semibipinnatum** (Wall. *ex* Hook.) Copel., Pteridophyta.

Aspidium vastum Bl. [191] = **Tectaria vasta** (Bl.) Copel., Pteridophyta.

Aspidium zollingerianum Kze. [191] = **Tectaria brachiata** (Zoll. & Mor.) Morton, Pteridophyta.

Asplenium falcatum Lam. [191], Pteridophyta.

Asplenium squamulatum Bl. [190], Pterodophyta.

Barringtonia pendulum Miers [83] = ? **Barringtonia pendula** (Griff.) Kurz, Lecythidaceae.

Calophyllum canum Hook. *f.* [47], Guttiferae.

Cassia siamea Lam. [74] = **Senna siamea** (Lam.) Irwin & Barneby, Leguminosae.

Celastrus championii Benth. [63] = **Celastrus monospermoides** Loes., Celastraceae.

Cephaelis griffithii Hook. *f.* [99], Rubiaceae.

Ceratolobus kingianus Becc. [176], Palmae.

Clerodendron paniculatum L. [124] = **Clerodendrum paniculatum** L., Verbenaceae.

Coelodepas ferrugineum Hook. f. [141] = **Koilodepas ferrugineum** Hook. *f.*, Euphorbiaceae.

Combretum trifoliatum Vent. [80], Combretaceae.

Croton olongifolium Roxb. [140] = **Croton oblongifolius** Roxb., Euphorbiaceae.

Derris malaccensis Prain [72], Leguminosae.

Derris oblonga Benth. (6086) [72] = **Derris canarensis** (Dalz.) Baker, Leguminosae.

Diplazium pallidum Bl. [191] = **Diplazium pallidum** (Bl.) Moore, Pteridophyta.

Diplazium speciosum Mett. [191], Pteridophyta.

Dipterocarpus hasseltii Bl. [49], Dipterocarpaceae.

Dracontomelum mangiferum Bl. [68] = **Dracontomelum dao** (Blanco) Merr. & Rolfe, Anacardiaceae.

Drynaria splendens Hook. [193] = **Aglaomorpha splendens** (J.Sm.) Copel., Pteridophyta.

Elaeocarpus apiculatus Mast. [55], Elaocarpaceae.

Elaphoglossum latifolium Sw. [194] = **Elaphoglossum angulatum** (Bl.) Moore, Pteridophyta.

Eranthemum album Nees [121] = **Pseuderanthemum graciliflorum** (Nees) Ridl., Acanthaceae.

Erycibe coriacea Wall. [116] = **Erycibe coriacea** Wall. *ex* Choisy, Convolvulaceae.

Eugenia anisosepala Duthie [83], Myrtaceae.

Eugenia bracteolata [82] = **Eugenia fastigiata** (Bl.) K. & V., Myrtaceae.

Eugenia laevicaulis Duthie [82], Myrtaceae.

Eugenia leptantha Wight [82] = **Eugenia claviflora** *var.* **leptalea** (Craib) Hend., Myrtaceae.

Eugenia thumra Roxb. [82] = **Eugenia thumra** Roxb. *var.* **penangiana** King, Myrtaceae.

Eurycles sylvestris Salisb. [167] = **Proiphys amboinensis** (L.) Herb., Amaryllidaceae.

Evodia pedunculosa Hook. f. [56] = **Tetractomia tetrandum** (Roxb.) Merr., Rutaceae.

Ficus acamptophylla Miq. [145], Moraceae.

Ficus altissima Bl. [145], Moraceae.

Ficus obtusifolia [145] = ? **Ficus curtipes** Corner, Moraceae.

Ficus punctata Thunb. [146], Moraceae.

Ficus ribes Reinwdt. [146] = **Ficus ribes** Reinw. *ex* Bl., Moraceae.

Ficus sumatrana [145] = **Ficus sumatrana** Miq., Moraceae.

Flacourtia inermis Clarke [44], Flacourtiaceae.

Freycinetia gaudichaudii Benn. [172], Pandanaceae.

Galeola altissima (Bl.) Rchb. *f.* [163], Orchidaceae.

Garcina cuspidata King [46], Guttiferae.

Geunsia farinosa Bl. [122] = **Geunsia pentandra** (Roxb.) Merr., Verbenaceae.

Glochidion coronatum Hook. f. [136] = **Glochidion penangense** (M.A.) AIRY SHAW, Euphorbiaceae.

Glochidion insulare HOOK. *f.* [136], Euphorbiaceae.

Glycosmis pentaphylla Corr. [56] = **Glycosmis pentaphylla** (RETZ.) CORR., Rutaceae.

Grewia fibrocarpa MAST. [54], Tiliaceae.

Guioa squamosa RADLK. [66], Sapindaceae.

Gymnopteris presliana HOOK. [194], Pteridophyta.

Hedyotis vestita R. Br. [92] = **Hedyotis vestita** R. BR. *ex* G. DON, Rubiaceae.

Heritiera fomes BUCH.-HAM. [53], Sterculiaceae.

Homalomena singaporensis REGEL [178], Araceae.

Hopea micrantha HOOK. *f.* [50], Dipterocarpaceae.

Hopea pierrei HANCE [50], Dipterocarpaceae.

Humata sessilifolia Bl. [189] = **Humata sessilifolia** (BL.) METT., Pteridophyta.

Lastrea crassifolia Bl. [191] = **Mesophlebion crassifolium** (BL.) HOLTT., Pteridophyta.

Lecanopteris carnosa Bl. [188] = **Lecanopteris carnosa** (REINW.) BL., Pteridophyta.

Limnophila conferta Benth. [118] = **Limnophila repens** (BENTH.) BENTH., Scrophulariaceae.

Lindsaea rigida SM. [189], Pteridophyta.

Litsea panamonja Ham. [131] = **Litsea panamanja** (NEES) HOOK. *f.*, Lauraceae.

Litsea penangiana HOOK. *f.* [131], Lauraceae.

Litsea polyantha Juss. [132] = **Litsea monopetala** (ROXB.) PERS., Lauraceae.

Lophopetalum curtisii King [62] = **Lophopetalum pallidum** LAWS., Celastraceae.

Lophopetalum fuscescens Kurz. [62] = **Lophopetalum javanicum** (ZOLL.) TURCZ., Celastraceae.

Machilus rimosus Bl. [131] = **Persea rimosa** (BL.) KOSTERM., Lauraceae.

Masea indica L. [103], Myrsinaceae.

Melodinus orientalis BL. [109], Apocynaceae.

Memecylon pauciflorum BL. [86], Melastomataceae.

Micromelum hirsutum OLIVER [56], Rutaceae.

Morinda tinctoria Roxb. [97] = **Morinda tomentosa** ROTH, Rubiaceae.

Mucuna biplicata Teysm. [71] = **Mucuna biplicata** T. & B. *ex* KURZ, Leguminosae.

Myristica brachiata King [129] = **Horsfieldia brachiata** (KING) WARB., Myristicaceae.

Myristica oblongifolia King [129] = **Knema oblongifolia** (KING) WARB., Myristicaceae.

Nepenthes reinwardtii Miq. [126] = **Nepenthes reinwardtiana** MIQ., Nepenthaceae.

Nephelium glabrum Noronha [66] = **Nephelium maingayi** HIERN, Sapindaceae.

Nephrodium pennigerum Bl. [192] = **Sphaerostephanos penniger** (HOOK.) HOLTT., Pteridophyta.

Niphobolus penangianus Hook. [193] = **Pyrrosia penangiana** (Hook.) Holtt., Pteridophyta.

Oxymitra affinis King [40] = **Oxymitra affinis** Hook. *f.* & Thoms., Annonaceae.

Paramignya grandiflora Oliv. [57] = **Paramignya grandiflora** Wall. *ex* Oliv., Rutaceae.

Phaeanthus lucidus Oliver [41] = **Phaeanthus crassipetalus** Becc., Annonaceae.

Phyllanthus maderaspatensis L. [135], Euphorbiaceae.

Phytocrene oblonga Wall. [61], Icacinaceae.

Pinanga coronata Bl. [172] = **Pinanga coronata** (Bl. *ex* Mart.) Bl., Palmae.

Pinanga paradoxa Scheff. [173] = **Pinanga paradoxa** (Griff.) Scheff., Palmae.

Pithecellobium bubalinum Benth. [77] = **Archidendron bubalinum** (Jack) Nielsen, Leguminosae.

Pleocnemia gigantea Bl. [191] = **Tectaria trimeni** (Bedd.) C. Chr., Pteridophyta.

Pleopeltis stenophylla Bl. [193] = **Crypsinus stenophyllus** (Bl.) Holtt., Pteridophyta.

Podocarpus neglectus Bl. [151] = **Podocarpus neriifolius** D. Don, Podocarpaceae.

Podocarpus neriifolius D. Don [151], Podocarpaceae.

Polygonum flaccidum Meissn. [126], Polygonaceae.

Polygonum pedunculare Wall. [126], Polygonaceae.

Polyosma fragrans Benn. [78], Saxifragaceae.

Polypodium streptophyllum Bak. [192] = **Acrosorus streptophyllus** (Bak.) Copel., Pteridophyta.

Premna cordifolia Roxb. [123], Verbenaceae.

Prosaptia contigua Sw. [189] = **Ctenopteris contigua** (G. Forst.) Holtt., Pteridophyta.

Psychotria montana var. tabacifolia Wall. [98] = ? **Psychotria montana** Bl., Rubiaceae.

Psychotria morindaeflora Wall. [98] = **Psychotria morindaeflora** Wall. *ex* King, Rubiaceae.

Pyrenaria kunstleri King [49], Theaceae.

Quercus oidocarpa Korth. [149] = **Quercus gaharuensis** Soepadmo, Fagaceae.

Randia fasciculata DC. [94] = **Fagerlindia fasciculata** (Roxb.) Tirveng., Rubiaceae.

Rhaphidophora gracilipes Hook. *f.* [179], Araceae.

Salomonia aphylla Griff. [45] = **Epirixanthes elongata** Bl., Polygalaceae.

Salomonia oblongifolia Dec. [45] = **Salomonia ciliata** (L.) DC., Polygalaceae.

Seliguea membranacea Hook. [194] = **Colysis membranacea** (Bl.) Presl, Pteridophyta.

Sesbania paludosa Roxb. [71] = **Sesbania roxburghii** Merr., Leguminosae.

Solanum aculeatissimum Jacq. [117] = **Solanum capsicoides** All., Solanaceae.

Sonerila heterophylla Herb. [84] = **Sonerila heterophylla** Jack, Melastomataceae.

Stemona tuberosa Lour., [168], Stemonaceae.

Stephania hernandifolia Wall. [42] = **Stephania japonica** (THUNB.) MIERS, Menispermaceae.

Streblus asper Lour. [143], Moraceae.

Symplocos spicata Roxb. [107] = **Symplocos cochinchinensis** (LOUR.) S. MOORE *ssp.* **laurina** (RETZ.) NOOTE., Symplocaceae.

Tinospora cordifolia Miers [42] = **Tinospora cordifolia** (WILLD.) HOOK. *f.* & THOMS., Menispermaceae.

Trichomanes digitatum SW. [188], Pteridophyta.

Trichomanes maximum BL. [188], Pteridophyta.

Uncaria ferrea DC. [91] = **Uncaria lanosa** WALL. *var.* **ferrea** (BL.) RIDSD., Rubiaceae.

Uncaria ovata Hook. f. [91] = **Uncaria canescens** KORTH., Rubiaceae.

Unona longiflora Roxb. [39] = **Desmos filipes** (RIDL.) RIDL., Annonaceae.

Unona stenopetala [40] = **Polyalthia stenopetala** (HOOK. *f.* & THOMS.) RIDL., Annonaceae.

Uvaria dulcis Dunal. [38] = **Uvaria javana** DUNAL, Annonaceae.

Ventilago madraspatana GAERTN. [63], Rhamnaceae.

Vitis japonica Thunb. [65] = **Cayratia japonica** (THUNB.) GAGNEP., Vitaceae.

Zalacca wallichiana Mart. [176] = **Salacca rumphii** WALL., Palmae.

Zanthoxylum ovalifolium WIGHT [56], Rutaceae.

Zingiber gracile JACK [165], Zingiberaceae.

APPENDIX C:

Species excluded by Ridley in his flora of Singapore (1900). Ridley corrected a number of earlier reports. The name in bold type is that considered correct. This is preceded by the name used by Ridley, where it is different from the correct name. The number in square brackets represents the page number on which the species is found in Ridley (1900). A question mark indicates doubt concerning the species to which Ridley referred.

Adhatoda vasica Nees [122] = **Justicia adhatoda** L., Acanthaceae.

Alocasia longiloba Miq. [177], Araceae.

Ardisia odontophylla var. lobbii [105] = **Ardisia odontophylla** Wall. *ex* A. DC. *var.* **lobbii** Clarke, Myrsinaceae.

Argostemma elatostemma Hook. [92], Rubiaceae.

Argostemma parvifolium Benn. [92] = **Argostemma hookeri** King, Rubiaceae.

Argostemma spinulosum Clarke [92], Rubiaceae.

Calamus diffusus Becc. [175] = **Calamus oxleyanus** T. & B., Palmae.

Calycopteris floribunda Lam. [79] = **Calycopteris floribunda** (Roxb.) Lam., Combretaceae.

Cleistanthus nitidus Hook. *f.* [135], Euphorbiaceae.

Clerodendron colebrookianum Walp. [124] = **Clerodendrum colebrokianum** Walp., Verbenaceae.

Clerodendron infortunatum Gaertn. [124] = **Clerodendrum infortunatum** L., Verbenaceae.

Clerodendron ixoraeflorum Hassk. [124] = ? **Clerodendrum colebrokianum** Walp., Verbenaceae.

Conocephalus scortechinii King [148] = **Poikilospermum scortechinii** (King *apud* Hook. *f.*) Merr., Urticaceae.

Conocephalus subtrinervius Miq. [148] = **Poikilospermum microstachys** (Barg.-Petr.) Merr., Urticaceae.

Cyrtandra pilosa Bl. [120], Gesneriaceae.

Cyrtandromoea acuminata Benth. [120] = ? **Cyrtandromoea subsessilis** (Miq.) B.L. Burtt, Scrophulariaceae.

Dacrydium elatum Wall. [150] = **Dacrydium elatum** (Roxb.) Wall. *ex* Hook., Podocarpaceae.

Dendrobium junceum Lindl. [155], Orchidaceae.

Dimorphocalyx capillipes Hook.f. [140] = **Trigonostemon capillipes** (Hook. *f.*) Airy Shaw, Euphorbiaceae.

Elatostema molle Wedd. [148] = ?

Eugenia helferi Duthie [81], Myrtaceae.

Gardenia speciosa Hook. [95] = **Gardenia tubifera** Wall., Rubiaceae.

Iguanura wallichiana Hook.f. [173] = **Iguanura wallichiana** (Wall. *ex* Mart.) Hook. *f.*, Palmae.

Leptadenia reticulata Wight [114], Asclepiadaceae.

Licuala acutifida Mart. [174], Palmae.

Mallotus barbatus M.A. [141], Euphorbiaceae.

Mallotus philippinensis Muell. [141] = **Mallotus philippinensis** (LAM.) M.A., Euphorbiaceae.

Melastoma decemfidum Jack [84] = **Melastoma sanguineum** SIMS, Melastomataceae.

Melastoma molle WALL. [83], Melastomataceae.

Nepenthes albomarginata LOBB [126], Nepenthaceae.

Ostodes muricata var. minor [140] = **Dimorphocalyx muricatus** (HOOK. *f.*) AIRY SHAW *var.* **minor** (HOOK. *f.*) AIRY SHAW, Euphorbiaceae.

Pellionia javanica Wedd. [148] = **Elatostema latifolium** (BL.) H. SCHR_T., Urticaceae.

Phyllanthus coriaceus Wall. [135] = **Phyllanthus pachyphyllus** M.A., Euphorbiaceae.

Pinanga polymorpha BECC. [173], Palmae.

Platycerium grande Sm. [194] = **Platycerium grande** J. SM. *ex* HOOK., Pteridophyta.

Polypodium adspersum Bl. [192] = **Grammitis adspersa** (BL.) BL., Pteridophyta.

Polypodium setigerum Bl. [192] = ?

Pupalia atropurpurea Miq. [126] = **Pupalia lappacea** (L.) JUSS., Amaranthaceae.

Solanum biflorum Lour. [117] = ?

Stelechocarpus burahol Hook.f. [38] = **Stelechocarpus burahol** (BL.) HOOK. *f.* & THOMS., Annonaceae.

Streptocaulon wallichii WIGHT [111], Asclepiadaceae.

Wikstroemia indica [133] = **Wikstroemia indica** (L.) C.A. MEY., Thymelaeaceae.

Xylia dolabriformis Benth. [76] = **Xylia xylocarpa** (ROXB.) THEOB., Leguminosae.

APPENDIX D:

Species Ridley (1900) gives as only cultivated in Singapore, or as occasional escapes from cultivation. The name in bold type is that considered correct. This is preceded by the name used by Ridley, where it is different from the correct name. The number in square brackets represents the page number on which the species is found in Ridley (1900). A question mark indicates doubt concerning the species to which Ridley referred.

Acorus calamus L. [179], Araceae.

Albizzia lebbek Benth. [76] = **Albizia lebbeck** (L.) Benth., Leguminosae.

Albizzia odoratissima Benth. [76] = **Albizia odoratissima** (L.*f.*) Benth., Leguminosae.

Aleurites moluccana Willd. [139] = **Aleurites moluccana** (L.) Willd., Euphorbiaceae.

Allamanda schottii Pohl [110] = ?

Alocasia cucullata Schott [177] = **Alocasia cucullata** (Lour.) G. Don, Araceae.

Amaranthus caudatus L. [125], Amaranthaceae.

Amaranthus paniculatus L. [125] = **Amaranthus hybridus** L. *ssp.* **cruentus** (L.) Thell. *var.* **paniculatus** (L.) Thell., Amaranthaceae.

Amaranthus viridus L. [125] = **Amaranthus gracilis** Desf., Amaranthaceae.

Areca catechu L. [172], Palmae.

Arenga saccharifera Labill. [174] = **Arenga pinnata** (Wurmb) Merr., Palmae.

Artemisia vulgaris L. [102], Compositae.

Borassus flabellifer L. [176], Palmae.

Calotropis procera R.Br. [111] = **Calotropis procera** (Ait.) R. Br., Asclepiadaceae.

Canna indica L. [166], Cannaceae.

Canna warcewiczii [166] = **Canna indica** L., Cannaceae.

Capsicum frutescens L. [117], Solanaceae.

Capsicum grossum Willd. [117] = **Capsicum annuum** L., Solanaceae.

Capsicum minimum [117] = ?

Clerodendron fallax Lindl. [124] = **Clerodendrum speciosissimum** van Geert *ex* Morren = **Clerodendrum buchananii** (Roxb.) Walp. *var.* **fallax** (Lindl.) Bakh., Verbenaceae.

Clerodendron fragrans Vent. [124] = **Clerodendrum philippinum** Schauer = **Clerodendrum chinense** (Osbeck) Mabberley, Verbenaceae.

Clerodendron siphonanthus R.Br. [124] = **Clerodendrum indicum** (L.) Kuntze, Verbenaceae.

Clerodendron squamatum Vahl [124] = **Clerodendrum kaempferi** (Jacq.) Sieb. *ex* Steud., Verbenaceae.

Corchorus capsularis L. [54], Tiliaceae.

Cosmos bipinnatus [102] = **Cosmos bipinatus** L., Compositae.

Curcuma zedoaria Rosc. [165] = **Curcuma zedoaria** (Christm.) Roscoe, Zingiberaceae.

Cynometra cauliflora L. [75], Leguminosae.

Datura fastuosa L. [117] = **Datura metel** L., Solanaceae.

Dioscorea alata L. [168], Dioscoreaceae.

Eranthemum andersoni Masters [121] = **Pseuderanthemum graciliflorum** (NEES) RIDL., Acanthaceae.

Eugenia jambolana Lam. [83] = **Eugenia cumini** (L.) DRUCE, Myrtaceae.

Euphorbia tirucalli L. [134], Euphorbiaceae.

Flacourtia catophracta Roxb. [44] = **Flacourtia jangomas** (LOUR.) RAEUSCH., Flacourtiaceae.

Geunsia reevesii Wall. [122] = ? **Callicarpa nudiflora** HOOK. & ARN., Verbenaceae.

Homolanthus populifolius Grah. [142] = **Homolanthus populneus** (GEISEL.) PAX, Euphorbiaceae.

Ipomoea batatus L. [117] = **Ipomoea batatus** (L.) LAM., Convolvulaceae.

Ipomoea coccinea [117] = **Ipomoea hederifolia** L., Convolvulaceae.

Ipomoea quamoclit L. [117], Convolvulaceae.

Justicia gendarussa L. [122] = **Gendarussa vulgaris** NEES, Acanthaceae.

Metroxylon rumphii Mart. [176] = **Metroxylon sagu** ROTTB., Palmae.

Metroxylon sagus Rottb. [176] = **Metroxylon sagu** ROTTB., Palmae.

Myristica pendulina Hook. [130] = **Horsfieldia sylvestris** (HOUTT.) WARB., Myristicaceae.

Pandanus laevis Rumph [171] = **Pandanus tectorius** PARKINSON *ex* "Z" *var.* **laevis** WARB., Pandanaceae.

Passiflora quadrangularis L. [87], Passifloraceae.

Pentapetes phoenicea L. [53], Sterculiaceae.

Phyllanthus distichus Muell. [136] = **Phyllanthus acidus** (L.) SKEELS, Euphorbiaceae.

Phyllanthus pulcher Wall. [135] = **Phyllanthus pulcher** WALL. *ex* M.A., Euphorbiaceae.

Raphistemma pulchellum Wall. [112] = **Raphistemma pulchellum** (ROXB.) WALL., Asclepiadaceae.

Solanum melongena L. [117], Solanaceae.

Tabernaemontana coronaria Roxb. [110] = **Tabernaemontana divaricata** (L.) R. BR. *ex* R. & S., Apocynaceae.

Tephrosia candida DC. [71] = **Tephrosia candida** (ROXB.) DC., Leguminosae.

APPENDIX E

Species given in Ridley (1900) that I have been unable to identify. Ridley was unable to name some collections from Singapore. These he referred to by collection numbers (usually numbers of four digits) or by brief descriptions. Abbreviated versions of these descriptions have been used for the unnamed species in the index.The number in square brackets represents the page number on which the species is found in Ridley (1900).

Acanthospermum xanthoides DC. [102]
Adinandra sp. (4004) "Mongol" [48]
Alstonia grandifolia Miq. doubtful [110]
Amorphophallus sp. [177]
Aquilaria sp. [132]
Ardisia sp. (6434) [105]
Artocarpus sp. "medium sized tree" small leaves small green fruits, Botanic Gardens' Jungle [148]
Baccaurea sp. (6263), Botanic Gardens' Jungle [139]
Blyxa malaccensis Ridl. [152]
Caesulia axillaris Roxb. [101]
Canthium sp. (6506) [96]
Castanopsis hystrix DC. [150]
Castanopsis sp. like hullettii [150]
Daemonorops accedens Bl. [176]
Daemonorops crinita Bl. [176]
Dendrobium kunstleri Hook. f. [155]
Derris sp. (6087) [72]
Diospyros sapotoides Kurz [107]
Dischidia wallichii Wight [113]
Glochidion desmogyne Hook. f. [136]
Heptapleurum ellipticum Seem. [89]
Hymenophyllum sp. (8938) [188]
Ixora amoena Vahl [97]
Ixora parviflora Vahl [97]
Lasianthus crinitus Hook. f. [99]
Lastrea appendiculata [191]
Lastrea fuscipes Wall. [191]
Lindera sp. [132]
Lindsaya trapeziformis Dry. [189]
Litsea longipes Meissn. [131]
Litsea nitida Bl. [132]
Litsea salicifolia Roxb. [132]
Lycopodium taxifolium Sw. [185]
Memecylon sp. (3840) [86]
Memecylon sp. (4436) [86]
Modecca populifolia Ham. [87]
Morinda persicaefolia Ham. [97]
Morinda sp. [97]
Mussaenda variabilis Hemsl. [93]
Myrsine capitellata Wall. [104]
Nephrodium latebrosum Kze. [192]
Nephrodium molle Desv. var. *procurrens* [192]
Nephrolepis duffii [192]
Pandanus sp. (stems slender) [172]
Pandanus sp. near P. helicopus [172]
Pandanus sp. "a tall plant" [172]
Payena costata King [106]
Phoebe sumatrana Miq. (1811) [131]
Phoenix sp. [174]
Pouzolzia pentandra Benn. [148]
Premna coriacea Clarke [123]
Premna flavescens var. *rubens* [123]
Psychotria sp. "greenflowers" [98]
Psychotria sp. "grey-green fruits" [98]
Randia angulosa Wall. [94]
Salacia longiflora Hook. buff flowers [63]
Saprosma sp. [99]
Sarcocephalus sp. (6381) [90]
Schizoloma media R. Br. [190]
Selaginella plumosa Bak. [195]
Selaginella sp. (6547) [196]
Spermacoce ocymoides Burm. [100]
Torenia mucronulata Benth. [118]
Trichomanes filicula Bory [188]
Trichomanes parviflorum Poir. [188]
Triumfetta pilosa Roth. [54]
Vitis sp. [65]
Webera sp. (5961) [94]
Wormia sp. [37]

APPENDIX F:

Index of the native and naturalized species included in the *Flora of Syonan*. Numbers refer to the taxa in the main text. The names appear, as in the original typescript, without authorities. The *Flora of Syonan* also included commonly cultivated species which have been omitted from Appendix F.

Abacopteris menisciicarpa 127
Abacopteris triphylla 129
Abacopteris urophylla 128
Abrus precatorius 1247
Abutilon indicum 1406
Acacia auriculiformis 1248
Acacia pseudo-intsia 1250
Acalypha indica 828
Acanthospermum brasilium 553
Achyranthes aspera 234
Acriopsis javanica 1731
Acriopsis ridleyi 1732
Acroceras ridleyi 997
Acroceras sparsum 998
Acronychia porteri 2248
Acrostichum aureum 1
Acrosticum speciosum 2
Actephila excelsa 829
Actephila javanica 829
Actinodaphne glomerata 1193
Actinodaphne hullettii 1195
Actinodaphne maingayi 1194
Actinodaphne malaccensis 1195
Actinodaphne pruinosa 1196
Adenanthera bicolor 1251
Adenanthera pavonina 1252
Adenia singaporeana 2002
Adenoncos sumatrana 1733
Adenosacme malayana 2164
Adenosma caeruleum 2292
Adenosma capitatum 2291
Adenosma inopinatum 2292
Adenosma ovatum 2293
Adenostemma viscosum 555
Adiantum capillus-veneris 3
Adiantum hispidulum 6
Adiantum stenochlamys 8
Adina rubescens 2179
Adinandra acuminata 2369
Adinandra dumosa 2370
Adinandra hullettii 2371
Adinobotrys erianthus 1320
Aegiceras corniculatum 1616
Aeschynanthus parvifolia 987
Aeschynanthus purpurascens 988
Aeschynanthus radicans 989
Aeschynanthus wallichii 990
Aeschynomene indica 1254
Agelaea hullettii 592
Agelaea vestita 591
Agelaea wallichii 592
Ageratum conyzoides 556
Aglaia cordata 1469
Aglaia glabriflora 1472
Aglaia odoratissima 1474
Aglaia oligophylla 1475
Aglaia palembanica 1476
Aglaia trichostemon 1482
Aglaonema angustifolium 379
Aglaonema griffithii 376
Aglaonema oblongifolium 378
Aglaonema pictum 377
Aglaonema schottianum 379
Agrostistachys gaudichaudii 830
Agrostistachys sessilifolia 831
Agrostophyllum bicuspidatum 1734
Agrostophyllum majus 1735
Agyneia bacciformis 951
Alangium lamarckii 233
Alangium nobile 231
Alangium ridleyi 232
Alangium tutela 228b
Albizia falcata 1333
Albizia littoralis 1256
Albizia pedicellata 1255
Alchornea javensis 832
Alchornea villosa 833
Allmania nodiflora 235

Allophyllus cobbe 2246
Alloteropsis cimicina 999
Alocasia denudata 380
Alocasia macrorhiza 381
Alpinia conchigera 2482
Alpinia galanga 2483
Alpinia melanocarpa 2481
Alpinia mutica 2484
Alpinia rafflesiana 2485
Alseodaphne bancana 1197
Alstonia angustifolia 336
Alstonia angustiloba 337
Alstonia spathulata 338
Alternanthera sessilis 238
Alysicarpus nummularifolius 1258
Alysicarpus vaginalis 1258
Alyxia lucida 340a
Amaranthus spinosus 240
Ambullia sessiliflora 2299
Amomum hastilabium 2486
Amomum xanthophlebium 2487
Amoora cucullata 1470
Amoora rubescens 1478
Amoora rubiginosa 1479
Amorphophallus prainii 382
Amylotheca duthieana 1381
Anacardium occidentale 244
Anadendrum montanum 384
Anaxagorea javanica 268a
Ancistrocladus pinangianus 2266
Aneilema nudiflorum 550
Aneilema vaginata 551
Angelesia nitida 531
Angiopteris evecta 12
Anisomeles ovata 1180
Anisophyllea disticha 2061
Anisophyllea griffithii 2062
Anisoptera costata 762
Anisoptera laevis 763
Anisoptera megistocarpa 764
Anodendron candolleanum 340
Anoectochilus geniculatus 1736
Anplectrum glaucum 1420
Anplectrum pallens 1422
Antiaris toxicaria 1518
Antidesma alatum 836
Antidesma coriaceum 834
Antidesma cuspidatum 835
Antidesma velutinosum 837
Aphanamixis rohituka 1483
Aphyllorchis pallida 1737
Aporusa benthamiana 838
Aporusa bracteosa 839
Aporusa confusa 840
Aporusa falcifera 841
Aporusa frutescens 842
Aporusa lunata 843
Aporusa maingayi 844
Aporusa nervosa 845
Aporusa nigricans 846
Aporusa prainiana 847
Aporusa symplocoides 848
Apostasia nuda 1738
Appendicula anceps 1739
Appendicula cornuta 1740
Appendicula lucida 1741
Aquilaria hirta 2380
Aquilaria malaccensis 2381
Arachnis hookeriana 1743
Arachnis maingayi 1744
Archytaea vahlii 468
Ardisia colorata 1617
Ardisia crassa 1618
Ardisia elliptica 1620
Ardisia lanceolata 1621
Ardisia ridleyi 1623
Ardisia singaporensis 1625
Ardisia teysmanniana 1626
Ardisia tuberculata 1627
Ardisia villosa 1628
Aristolochia unguliflora 419
Aromadendron elegans 1399
Artabotrys costatus 269
Artabotrys crassifolius 270
Artabotrys maingayi 271
Artabotrys suaveolens 272
Artabotrys wrayi 273
Arthrophyllum diversifolium 411
Artocarpus bracteatus 1578
Artocarpus dadah 1520
Artocarpus elasticus 1521
Artocarpus forbesii 579
Artocarpus gomezianus 1529
Artocarpus kemando 1526
Artocarpus lanceifolius 1526
Artocarpus lowii 1527
Artocarpus maingayi 1528
Artocarpus rigidus 1530

Artocarpus scortechinii 1531
Artocarpus superbus 1519
Arundina graminifolia 1745
Arytera littoralis 2247
Asclepias curassavica 422
Aspidopterys concava 1402
Asplenium batuense 14
Asplenium glaucophyllum 18
Asplenium longissimum 15
Asplenium macrophyllum 16
Asplenium nidus 17
Asplenium phyllitidus 19
Asplenium tenerum 20
Asystasia coromandeliana 115
Asystasia intrusa 196
Athyrium cordifolium 45
Athyrium crenatoserratum 46
Athyrium esculentum 47
Athyrium malaccense 48
Athyrium pinnatum 52
Athyrium prescottianum 50
Athyrium riparium 51
Athyrium sorzogonense 53
Athyrium tomentosum 54
Avicennia alba 451
Avicennia lanata 454
Avicennia officinalis 453
Axonopus compressus 1001
Azolla pinnata 21
Baccaurea bracteata 850
Baccaurea griffithii 851
Baccaurea hookeri 852
Baccaurea kingii 864
Baccaurea kunstleri 853
Baccaurea lanceolata 854
Baccaurea macrophylla 856
Baccaurea maingayi 857
Baccaurea minor 858
Baccaurea motleyana 859
Baccaurea parviflora 860
Baccaurea pyriformis 861
Baccaurea reticulata 863
Baccaurea wallichii 862
Bambusa vulgaris 1004
Barathranthus ascanthus 1382
Barclaya motleyi 1703
Barringtonia asiatica 1237
Barringtonia conoidea 1238
Barringtonia macrostachya 1239
Barringtonia racemosa 1240
Barringtonia sumatrana 1241
Bauhinia semibifida 1265
Beilschmiedia kunstleri 1200
Beilschmiedia malaccensis 1201
Bidens pilosa 557
Blechnum finlaysonianum 22
Blechnum indicum 23
Blechnum orientale 24
Blumea balsamifera 558
Blumea chinensis 562
Blumea lacera 560
Blumea membranacea 561
Blumeodendron elateriospermum 865
Blumeodendron tokbrai 865
Blyxa malayana 1151
Boehmeria nivea 2411
Boerhavia diffusa 1702
Bolbitis diversifolia 28
Bolbitis heteroclita 27
Bonnaya brachiata 2304
Bonnaya reptans 2307
Bonnaya veronicaefolia 2302
Borreria hispida 2084
Borreria laevicaulis 2085
Borreria latifolia 2083
Borreria setidens 2088
Bouea macrophylla 245
Bouea microphylla 246
Brachiaria distachya 1006
Brachiaria mutica 1007
Breynia coronata 866
Breynia discigera 867
Breynia reclinata 868
Breynia rhamnoides 869
Bridelia pustulata 872
Bridelia stipularis 873
Bridelia tomentosa 874
Bromheadia alticola 1747
Bromheadia aporoides 1748
Bromheadia finlaysoniana 1749
Brownlowia argentata 2386
Brownlowia lanceolata 2387
Brownlowia riedelii 2386
Brucea amarissima 2316
Bruguiera caryophylloides 2063
Bruguiera eriopetala 2066
Bruguiera gymnorrhiza 2064
Bruguiera parviflora 2065

Bryophyllum calycinum 634
Buchanania lucida 247
Buchanania sessilifolia 248
Bulbophyllum acuminatum 1750
Bulbophyllum adenopetalum 1756
Bulbophyllum apodum 1751
Bulbophyllum blumei 1752
Bulbophyllum botryophorum 1753
Bulbophyllum cleistogamum 1754
Bulbophyllum concinnum 1755
Bulbophyllum corneri 1779
Bulbophyllum limbatum 1757
Bulbophyllum macranthum 1758
Bulbophyllum makoyanum 1760
Bulbophyllum medusae 1761
Bulbophyllum membranaceum 1762
Bulbophyllum microbulbon 1770
Bulbophyllum patens 1765
Bulbophyllum pileatum 1766
Bulbophyllum pulchellum 1767
Bulbophyllum purpurascens 1768
Bulbophyllum rugosum 1771
Bulbophyllum sessile 1772
Bulbophyllum singaporeanum 1773
Bulbophyllum stella 1759
Bulbophyllum striatellum 1774
Bulbophyllum tenuifolium 1775
Bulbophyllum trifolium 1776
Bulbophyllum vaginatum 1777
Bulbophyllum vermiculare 1778
Bulbostylis barbata 643
Bulbostylis puberula 644
Burmannia coelestis 477
Burmannia tuberosa 476
Byttneria maingayi 2336
Caesalpinia bonduc 1266
Caesalpinia bonducella 1266
Caesalpinia nuga 1267
Calamus aquatilis 1937
Calamus densiflorus 1935
Calamus diepenhorstii 1936
Calamus insignis 1938
Calamus javensis 1939
Calamus laxiflorus 1942
Calamus lobbianus 1941
Calamus ornatus 1943
Calamus oxleyanus 1944
Calamus pallidulus 1940
Calamus ridleyanus 1945
Calanthe pulchra 1780
Callicarpa longifolia 2420
Calophanoides quadrifaria 195
Calophyllum ferrugineum 1119
Calophyllum floribundum 1130
Calophyllum foetidum 1130
Calophyllum griffithii 1132
Calophyllum inophylloide 1131
Calophyllum inophyllum 1120
Calophyllum macrocarpum 1122
Calophyllum praineanum 1130
Calophyllum pulcherrimum 1123
Calophyllum retusum 1119
Calophyllum spectabile 1127
Calophyllum wallichianum 1125
Camarotis adnata 1781
Campnosperma auriculatum 249
Campnosperma minor 251
Canarium grandiflorum 484
Canarium kadondon 487
Canarium patentinervium 483
Canarium pilosum 484
Canarium purpurascens 482
Canarium rufum 482
Canarium secundum 482
Canavalia obtusifolia 1272
Canavalia turgida 1271
Cansjera zyzyphifolia 1728
Canthium confertum 2091
Canthium didymum 2195
Canthium glabrum 2092
Canthium horridum 2093
Canthium molle 2094
Capparis finlaysoniana 450
Carallia lucida 2067
Carallia scortechinii 2067
Carapa granatum 1502
Carapa moluccensis 1503
Cardiospermum halicacabum 2248
Carex cryptostachys 645
Caryota mitis 1946
Casearia clarkei 975
Casearia coriacea 977
Casearia lobbiana 976
Cassia alata 1339
Cassia hirsuta 1240
Cassia mimosoides 1276
Cassia obtusifolia 1341
Cassia occidentalis 1342

Cassia tora 1343
Cassytha filiformis 1202
Castanopsis andersonii 959
Castanopsis hullettii 955
Castanopsis inermis 953
Castanopsis malaccensis 956
Castanopsis megacarpa 957
Castanopsis nephelioides 958
Castanopsis wallichii 960
Casuarina equisetifolia 508
Celosia argentea 241
Centella asiatica 2408
Centella rotundifolia 2409
Centipeda orbicularis 563
Centotheca lappacea 1010
Centranthera humifusa 2295
Ceratopteris thalictroides 29
Cerbera manghas 343
Cerbera odollam 344
Ceriops candolleana 2068
Chamaeanthus laciniatus 1746
Champereia manillana 1729
Chassalia chartacea 2095
Chassalia pubescens 2097
Cheilanthes tenuifolia 30
Cheirorchis filiformis 1790
Chisocheton divergens 1487
Chisocheton erythrocarpus 1485
Chisocheton macrophyllus 1486
Chisocheton pauciflorus 1488
Chisocheton spicatus 1489
Chloranthus officinalis 528
Chloris barbata 1012
Chrysophyllum roxburghii 2264
Chrysopogon aciculatus 1013
Cinnamomum iners 1203
Cinnamomum javanicum 1204
Cinnamomum ridleyi 1205
Claderia viridiflora 1782
Cladium glomeratum 709
Claoxylon indicum 876
Claoxylon longifolium 877
Clausena excavata 2229
Cleistanthus heterophyllus 882
Cleistanthus hirsutulus 878
Cleistanthus macrophyllus 879
Cleistanthus malaccensis 880
Cleistanthus myrianthus 881
Cleome aculeata 501
Cleome ciliata 503
Cleome viscosa 505
Clerodendrum inerme 2423
Clerodendrum laevifolium 2424
Clerodendrum myrmecophilum 2425
Clerodendrum villosum 2426
Clidemia hirta 1419
Clitoria cajanifolia 1277
Clitoria ternatea 1278
Cnestis ramiflora 593
Cocculus ovalifolius 1505
Cocos nucifera 1947
Coelodepas glanduligerum 913
Coelogyne cumingii 1785
Coelogyne foerstermanii 1786
Coelogyne mayeriana 1787
Coelogyne rochussennii 1788
Coelogyne testacea 1789
Coelorachis glandulosa 1070
Coelospermum scandens 2089
Coelostegia griffithii 462
Coix lacryma-jobi 1014
Coleus atropurpurea 1191
Colocasia antiquorum 385
Colubrina asiatica 2054
Combretum sundaicum 536
Commelina attenuata 545
Commelina beghalensis 546
Commelina nudiflora 547
Commersonia bartramia 2337
Connaropsis griffithii 1933
Connaropsis macrophylla 1934
Connarus ellipticus 595
Connarus ferrugineus 594
Connarus grandis 597
Connarus oligophyllus 596
Connarus semidecandrus 598
Conocephalus amoenus 2417
Conocephalus suaveolens 2418
Coptosapelta flavescens 2100
Coptosapelta griffithii 2098
Coptosapelta parviflora 2099
Corchorus acutangulus 2388
Cordia cylindristachya 470
Cordia obliqua 471
Corymbis veratrifolia 1791
Coscinium wallichianum 1506
Costus globosus 2488
Costus lucanusianus 2489

Costus speciosus 2490
Cratoxylum arborescens 1160
Cratoxylum formosum 1162
Cratoxylum ligustrinum 1161
Crepis japonica 590
Crinum asiaticum 243
Crotalaria alata 1279
Crotalaria quinquefolia 1283
Crotalaria retusa 1284
Crotalaria saltiana 1282
Croton argyratus 883
Croton caudatus 885
Croton confusus 888
Croton griffithii 888
Croton heteropetalum 886
Crypteronia griffithii 637
Cryptocarya caesia 1206
Cryptocarya ferrea 1207
Cryptocarya griffithiana 1208
Cryptocarya impressa 1209
Cryptocarya kurzii 1210
Cryptocoryne ciliata 386
Cryptocoryne griffithii 387
Cryptostylis arachnites 1792
Curculigo latifolia 1165
Curculigo recurvata 1166
Cuscuta hygrophilae 607
Cyanotis barbata 548
Cyathea glabra 36
Cyathea latebrosa 37
Cyathea squamulata 38
Cyathocalyx virgatus 299
Cyathostemma hookeri 278
Cyathostemma viridiflorum 279
Cyclea laxiflora 1507
Cyclophorus acrostichoides 140
Cyclophorus adnascens 139
Cyclophorus angustata 138
Cyclophorus varius 139
Cyclosorus aridus 31
Cyclosorus extensus 10
Cyclosorus gongylodes 39
Cyclosorus heterocarpus 153
Cyclosorus parasiticus 33
Cyclosorus subpubescens 34
Cyclosorus sumatranus 34
Cyclosorus truncatus 126
Cyclosorus unitus 155
Cymbidium finlaysonianum 1794
Cymbidium pubescens 1793
Cynanchum ovalifolium 423
Cynodon dactylon 1016
Cynometra ramiflora 1286
Cyperus diffusus 656
Cyperus distans 655
Cyperus haspan 659
Cyperus iria 661
Cyperus malaccensis 664
Cyperus pilosus 667
Cyperus radians 670
Cyperus rotundifolius 671
Cyperus stoloniferus 674
Cyperus uncinatus 650
Cyperus zollingeri 675
Cyrtandra pendula 991
Cyrtococcum accrescens 1017
Cyrtococcum oxyphyllum 1018
Cyrtosperma lasioides 388
Cyrtostachys lakka 1948
Cystorchis variegata 1795
Dacryodes laxa 486
Dacryodes rostrata 487
Dactyloctenium aegyptium 1019
Daemonorops angustifolia 1949
Daemonorops carcharodon 1949
Daemonorops didymophylla 1949
Daemonorops grandis 1952
Daemonorops hystrix 1953
Daemonorops leptopus 1955
Daemonorops longipes 1957
Daemonorops micrantha 1958
Daemonorops periacantha 1959
Dalbergia hullettii 1287
Dalbergia parviflora 1289
Dalbergia rostrata 1290
Dalbergia scortechinii 1288
Dalbergia stercoracea 1288
Dalbergia torta 1286
Dalbergia velutina 1291
Dapania scandens 1929
Daphniphyllum laurinum 739
Davallia denticulata 40
Davallia solida 41
Decaspermum fruticosum 1639
Dehaasia microcarpa 1212
Dehaasia nigrescens 1199
Dendrobium acerosum 1796
Dendrobium aloifolium 1798

Dendrobium bifarium 1799
Dendrobium callibotrys 1811
Dendrobium carnosum 1800
Dendrobium comatum 1852
Dendrobium crocatum 1801
Dendrobium crumenatum 1802
Dendrobium flabellum 1853
Dendrobium flexile 1803
Dendrobium grande 1803
Dendrobium indivisum 1806
Dendrobium kelsallii 1850
Dendrobium laciniosum 1854
Dendrobium lamellatum 1807
Dendrobium leonis 1808
Dendrobium lobatum 1809
Dendrobium lobbii 1810
Dendrobium longicolle 1810
Dendrobium pandaneti 1813
Dendrobium pensile 1814
Dendrobium planibulbe 1815
Dendrobium prostratum 1816
Dendrobium pumilum 1812
Dendrobium revolutum 1818
Dendrobium salaccense 1819
Dendrobium secundum 1820
Dendrobium setifolium 1821
Dendrobium sinuatum 1823
Dendrobium spurium 1825
Dendrobium subulatum 1826
Dendrobium teres 1822
Dendrochilum ellipticum 1828
Dendrochilum longifolium 1829
Dendrophthoe pentandra 1384
Dentella repens 2101
Deplanchea bancana 456
Derris amoena 1292
Derris scandens 1294
Derris sinuata 1293
Derris thyrsiflora 1295
Derris uliginosa 1296
Desmodium heterophyllum 1300
Desmodium ovalifolium 1299
Desmodium polycarpum 1299
Desmodium triflorum 1301
Desmodium umbellatum 1302
Desmos chinensis 280
Desmos dasymaschala 281
Desmos dumosus 282
Dialium laurinum 1303
Dialium maingayi 1304
Dialium patens 1305
Dialium wallichii 1306
Dianella ensifolia 1367
Dictyopteris irregularis 124
Didymocarpus perdita 993
Didymocarpus platypus 992
Didymoplexis pallens 1830
Digitaria caespitosa 1026
Digitaria chinensis 1031
Digitaria longiflora 1026
Digitaria marginata 1023/1029/1030
Dillenia grandifolia 742
Dillenia indica 743
Dillenia reticulata 745
Dilochia wallichii 1832
Dimeria ornithopoda 1031
Dioclea reflexa 1307
Diodia sarmentosa 2103
Dioscorea bulbifera 752
Dioscorea glabra 753
Dioscorea hispida 754
Dioscorea laurifolia 755
Dioscorea polyclades 756
Dioscorea prainiana 757
Dioscorea pyrifolia 758
Dioscorea stenomeriflora 760
Diospyros argentea 789
Diospyros bilocularis 798
Diospyros clavigera 791
Diospyros lucida 796
Diospyros microphylla 790
Diospyros oblonga 799
Diospyros pyrifera 794
Diospyros styraciformis 801
Diplospora malaccensis 2104
Dipodium pictum 1833
Dipteris conjugata 55
Dipterocarpus cornutus 767
Dipterocarpus penangianus 766
Dischidia albida 424
Dischidia bengalensis 426
Dischidia coccinea 427
Dischidia collyris 425
Dischidia gaudichaudii 430
Dischidia hirsuta 428
Dischidia rafflesiana 427729
Dischidia singaporensis 431
Dissochaeta annulata 1423

Dissochaeta celebica 1424
Dissochaeta gracilis 1425
Dissochaeta intermedia 1426
Dissochaeta pallida 1427
Dissochaeta punctulata 1428
Dolichandrone spathacea 457
Donax grandis 1414
Dracaena aurantiacea 219
Dracaena brachystachys 220
Dracaena elliptica 221
Dracaena granulata 222
Dracaena maingayi 223
Dracaena porteri 224
Dracaena singapurensis 225
Dracaena umbratica 226
Drepananthus pruniferus 274
Drepananthus ramuliflorus 274
Drymoglossum piloselloides 141
Drynaria sparsisora 57
Drypetes pendula 889
Duranta repens 2427
Durio griffithii 463
Durio oblongus 464
Dyera costulata 346
Dysophylla auricularia 1192
Dysoxylum acutangulum 1490
Dysoxylum alliaceum 1491
Dysoxylum cauliflorum 1492
Dysoxylum costulatum 1491
Dysoxylum flavescens 1496
Dysoxylum macrothyrsum 1492
Dysoxylum thyrsoideum 1491
Dysoxylum turbinatum 1495
Echinochloa colona 1033
Echinochloa crus-galli 1034
Eclipta alba 567
Egenolfia appendiculata 26
Eichhornia crassipes 2044
Elaeocarpus ferrugineus 805
Elaeocarpus floribundus 806
Elaeocarpus griffithii 807
Elaeocarpus hullettii 811
Elaeocarpus littoralis 808
Elaeocarpus mastersii 809
Elaeocarpus nitidus 810a
Elaeocarpus pedunculatus 812
Elaeocarpus petiolatus 813
Elaeocarpus polystachyus 814
Elaeocarpus salicifolius 810b
Elaeocarpus stipularis 816
Elaeodendron subrotundum 512
Eleocharis capitata 680
Eleocharis chaetaria 682
Eleocharis ochrostachys 681
Eleocharis plantaginea 679
Eleocharis variegata 681
Elephantopus scaber 568
Elettariopsis curtisii 2491
Eleusine coracana 1036
Eleusine indica 1037
Ellipanthus griffithii 599
Ellipeia cuneifolia 283
Elytranthe albida 1385
Elytranthe arnottiana 1386
Embelia amentacea 1629
Embelia canescens 1630
Embelia coriacea 1631
Embelia garcinifolia 1634
Embelia lampani 1633
Embelia ridleyi 1582
Emblica officinalis 938
Emilia sonchifolia 570
Endopogon ridleyi 213
Endospermum malaccense 890
Engelhardtia nudiflora 1179
Enhalus koenigii 1152
Enhydra fluctuans 570
Enhydrias angustipetala 1150
Enkleia malaccensis 2383
Entada spiralis 1308
Epipremnopsis media 383
Epipremnum giganteum 389
Epipremnum mirabile 390
Eragrostis amabilis 1045
Eragrostis elegantula 1038
Eragrostis elongata 1040
Eragrostis malayana 1042
Eragrostis pilosa 1043
Eragrostis tenella 1044
Eragrostis viscosa 1046
Erechtites hieracifolia 572
Erechtites valerianifolia 573
Eria bractescens 1834
Eria floribunda 1835
Eria gracilis 1920
Eria hyacinthoides 1836
Eria javanica 1837
Eria longe-repens 1838

Eria neglecta 1843
Eria nutans 1844
Eria obliqua 1841
Eria pannea 1842
Eria pudica 1844
Eria pulchella 1845
Eria robusta 1846
Eria tenuiflora 1847
Eria teretifolia 1843
Eria velutina 1921
Eria vestita 1922
Eriachne pallescens 1047
Erigeron sumatrense 565
Eriocaulon sexangulare 824
Eriocaulon truncatum 825
Erioglossum rubiginosum 2252
Erycibe festiva 609
Erycibe griffithii 610/612
Erycibe leucoxyloides 611
Erycibe malaccensis 613
Erycibe princei 614a
Eryngium foetidum 2409
Erythropalum scandens 1710
Erythroxylum cuneatum 826
Eugenia acuminatissima 1647
Eugenia caudata 1642
Eugenia chlorantha 1644
Eugenia claviflora 1645
Eugenia conglomerata 1646
Eugenia crenulata 1675
Eugenia cymosa 1686
Eugenia densiflora 1648
Eugenia duthieana 1649
Eugenia filiformis 1650
Eugenia glauca 1652
Eugenia goodenovii 1680
Eugenia grandis 1653
Eugenia griffithii 1654
Eugenia linocieroidea 1659
Eugenia longiflora 1660
Eugenia microcalyx 1661
Eugenia myrtifolia 1668
Eugenia ngadimaniana 1664
Eugenia nigricans 1665
Eugenia oblongifolia 1667
Eugenia pachyphylla 1669
Eugenia palembanica 1670
Eugenia papillosa 1671
Eugenia penangiana 1640
Eugenia polyantha 1674
Eugenia pseudoformosa 1676
Eugenia pseudosubtilis 1677
Eugenia punctulata 1643
Eugenia pustulata 1678
Eugenia ridleyi 1679
Eugenia rugosa 1680
Eugenia scoparia 1641
Eugenia spicata 1682
Eugenia subdecussata 1685
Eugenia subrufa 1654
Eugenia tumida 1654
Eugenia urceolata 1657
Eugenia venulosa 1662
Eulalia praemorsa 1091
Eulophia graminea 1848
Eulophia squalida 1849
Euonymus javanicus 513
Euphorbia atoto 891
Euphorbia heterophylla 892
Euphorbia hirta 893
Euphorbia thymifolia 894
Eurya acuminata 2372
Eurycoma longifolia 2317
Euthemis leucocarpa 1706
Euthemis minor 1707
Evodia glabra 2230
Evodia malayana 2232
Evodia robusta 2231
Evolvulus alsinoides 615
Excoecaria agallocha 895
Fagraea auriculata 1371
Fagraea fragrans 1372
Fagraea gigantea 1373
Fagraea ligustrina 1374
Fagraea obovata 1370
Fagraea racemosa 1374
Fagraea ridleyi 1375
Fibraurea chloroleuca 1508
Ficus alba 1552
Ficus annulata 1533
Ficus apiocarpa 1534
Ficus benjamina 1537
Ficus binnendykii 1538
Ficus bracteata 1540
Ficus callicarpa 1535
Ficus caulocarpa 1541
Ficus chartacea 1542
Ficus chrysocarpa 1536

Ficus consociata 1543
Ficus diversifolia 1546
Ficus dubia 1547
Ficus excavata 1548
Ficus fistulosa 1549
Ficus glandulifera 1550
Ficus globosa 1551
Ficus indica 1560/1571
Ficus laevis 1555
Ficus microstoma 1561
Ficus microsyc 1558
Ficus miquelii 1539
Ficus obscura 1559
Ficus pisifera 1560
Ficus procera 1544
Ficus pumila 1562
Ficus ramentacea 1567
Ficus recurva 1563
Ficus religiosa 1564
Ficus retusa 1557
Ficus rigida 1570
Ficus rostrata 1569
Ficus truncata 1565
Ficus urophylla 1553
Ficus variegata 1553
Ficus vasculosa 1574
Ficus villosa 1575
Ficus xylophylla 1577
Fimbristylis acuminata 684
Fimbristylis aestivalis 692
Fimbristylis asperrima 688
Fimbristylis complanata 685
Fimbristylis diphylla 687
Fimbristylis ferruginea 689
Fimbristylis fusca 690
Fimbristylis globulosa 691
Fimbristylis leptoclada 693
Fimbristylis miliacea 694
Fimbristylis nutans 695
Fimbristylis obtusata 696
Fimbristylis pauciflora 698
Fimbristylis polytrichoides 699
Fimbristylis schoenoides 700
Fimbristylis setacea 684
Fimbristylis spathacea 686
Fimbristylis tetragona 701
Finlaysonia obovata 432
Flacourtia rukam 978
Flagellaria indica 985
Flemingia strobilifera 1309
Fleurya interrupta 2412
Floscopa scandens 549
Flueggia virosa 949
Forrestia gracilis 543
Forrestia marginata 544
Freycinetia confusa 1988
Freycinetia lucens 1990
Freycinetia malaccensis 1987
Freycinetia valida 1991
Fuirena umbellata 703
Gaertnera acuminata 2107
Gaertnera grisea 2105
Gaertnera obesa 2106
Gaertnera viminea 2108
Gahnia tristis 704
Galearia affinis 897
Galearia finlaysonii 897
Galearia fulva 897
Galearia phlebocarpa 897
Galearia wallichii 897
Galeola kuhlii 1856
Ganua motleyana 2266
Garcinia atroviridis 1133
Garcinia bancana 1134
Garcinia eugeniaefolia 1135
Garcinia forbesii 1136
Garcinia gaudichaudii 1144
Garcinia griffithii 1137
Garcinia hombroniana 1138
Garcinia nervosa 1139
Garcinia nigrolineata 1140
Garcinia parvifolia 1141
Garcinia rostrata 1143
Gardenia griffithii 2109
Gardenia tubifera 2110
Gardeniopsis longifolia 2111
Gastrodia javanica 1857
Gelonium glomerulatum 950
Genianthus maingayi 433
Geophila pilosa 2112
Gironniera nervosa 2402
Gironniera subaequalis 2404
Girroniera parvifolia 24023
Gleichenia laevigata 59
Gleichenia linearis 44
Globba leucantha 2495
Globba pendula 2495
Glochidion brunneum 899

Glochidion desmocarpum 911
Glochidion glomerulatum 901
Glochidion kunstlerianum 903
Glochidion laevigatum 902
Glochidion leiostylum 907
Glochidion littorale 904
Glochidion maingayi 899
Glochidion microbotrys 905
Glochidion pedunculatum 899
Glochidion perakense 906
Glochidion sericeum 908
Glochidion singaporense 909
Glochidion superbum 910
Glochidion trilobum 905
Glochidion trilobum 911
Glycosmis citrifolia 2234
Glycosmis malayana 2233
Gmelina asiatica 2428
Gmelina elliptica 2429
Gmelina hystrix 2430
Gomphandra affinis 1168
Gomphia corymbosa 1705
Gomphia hookeri 1704
Gomphia oblongifolia 1708
Gomphia sumatrana 1708
Goniothalamus malayanus 295
Goniothalamus ridleyi 296
Goniothalamus tapis 297
Gonocaryum longeracemosum 1169
Gonystylus maingayi 995
Gordonia multinervis 2373
Gordonia penangensis 2374
Gordonia singaporeana 2375
Grammatophyllum speciosum 1851
Grewia blattaefolia 2390
Grewia omphacarpa 2391
Grewia umbellata 2389
Guettarda speciosa 2113
Guioa bijuga 2249
Guioa pleuropteris 2250
Guioa pubescens 2251
Gymnacranthera farquhariana 1584a/b
Gymnacranthera forbesii 1585
Gymnacranthera murtoni 1583
Gymnopetalum quinquelobum 639
Gynandropsis pentaphylla 502
Gynochthodes coriacea 2114
Gynochthodes sublanceolata 2115
Gynotroches axillaris 2069
Gynura sarmentosa 574
Habenaria lacertifera 1890
Habenaria singapurensis 1859
Halophila ovata 1155
Halophila sp. 1154
Hedyotis auricularia 2116
Hedyotis capitellata 2119
Hedyotis congesta 2120
Hedyotis pinifolia 2125
Hedyotis vestita 2128
Helicia excelsa 2051
Helicia petiolaris 2052
Helicia robusta 2053
Heliotropium indicum 473
*Helixanthera coccinea*1 387
Hemigymnia multinodis 1073
Henslowia buxifolia 2243
Henslowia lobbiana 2244
Heritiera elata 2339
Heritiera littoralis 2340
Hernandia peltata 1148
Herpestis monnieri 2284
Hetaeria nitida 1860
Hetaeria obliqua 1861
Heterogonium sagenoides 62
Heterosmilax indica 2320
Hibiscus surattensis 1407
Hibiscus tiliaceus 1408
Hippocratea indica 521
Hippocratea macrantha 518
Hiptage sericea 1403
Histiopteris incisa 63
Homalium grandiflorum 977
Homalomena caerulescens 393
Homalomena griffithii 391
Homalomena paludosa 394
Homalomena sagittifolia 395
Hopea griffithii 770
Hopea mengarawan 771
Hornstedtia conica 2497
Hornstedtia leonurus 2498
Hornstedtia megalocheilos 2492
Hornstedtia scyphifera 2499
Horsfieldia amygdalina 1593
Horsfieldia canarioides 1591
Horsfieldia crassifolia 1586
Horsfieldia globularia 1589
Horsfieldia irya 1588
Horsfieldia lehmanniana 1590

Horsfieldia majuscula 1590
Horsfieldia racemosa 1582
Horsfieldia sucosa 1593
Horsfieldia superba 1594
Horsfieldia tomentosa 1595
Horsfieldia wallichii 1596
Hoya coriacea 435
Hoya coronaria 436
Hoya diversifolia 437
Hoya finlaysonii 438
Hoya lacunosa 439
Hoya latifolia 440
Hoya obtusifolia 441
Hoya parasitica 442
Hoya revoluta 443
Hoya ridleyi 442
Humata angustata 64
Humata heterophylla 65
Humata pectinata 67
Humata repens 68
Hydnophytum formicarium 2129
Hydrolea zeylanica 1159
Hygrophila meianthos 201
Hygrophila phlomoides 202
Hygrophila quadrivalvis 200
Hygrophila spinosa 203
Hylophila mollis 1862
Hymenachne myuros 1052
Hymenophyllum blumeanum 72
Hymenophyllum holochilum 71
Hymenophyllum neesii 70
Hymenophyllum serrulatum 73
Hypericum japonicum 1164
Hypolytrum latifolium 705a
Hypolytrum proliferum 705b
Hypserpa cuspidata 1509
Hyptis brevipes 1181
Hyptis capitata 1182
Hyptis suaveolens 1183
Iguanura geonomaeformis 1962
Ilex cymosa 373
Ilex macrophylla 374
Ilex maingayi 375
Ilex venulosa 374
Illigera appendiculata 1149
Imperata arundinacea 1054
Imperata exaltata 1053
Indigofera hirsuta 1310
Indigofera tinctoria 1313
Intsia bijuga 1315
Iodes oblonga 1170
Iodes velutina 1171
Ipomoea digitata 620
Ipomoea littoralis 619
Ipomoea obscura 621
Ipomoea pes-caprae 622
Ipomoea pulchella 617
Ipomoea sagitaefolia 624
Irvingia malayana 2318
Isachne australis 1055
Isachne miliacea 1057
Isachne semitalis 1056
Ischaemum aristatum 1059
Ischaemum magnum 1060
Ischaemum muticum 1061
Ischaemum rugosum 1062
Ischaemum timorense 1063
Ixonanthes icosandra 1177
Ixonanthes reticulata 1178
Ixora concinna 2131
Ixora congesta 2132
Ixora grandifolia 2133
Ixora lobbii 2134
Ixora pendula 2114
Jackia ornata 2137
Jacobinea coccinea 204
Jasminum bifarium 1719
Jasminum griffithii 1720
Jasminum longipetalum 1721
Jussiaea erecta 1725
Jussiaea repens 1723
Jussiaea speciosa 1726
Jussiaea suffruticosa 1724
Kadsura cauliflora 2290
Kadsura scandens 2290
Kalanchoe pinnata 633
Kleinhovia hospita 2342
Knema cantleyi 1606
Knema conferta 1598
Knema curtisii 1599
Knema furfuracea 1600
Knema hookeriana 1603
Knema intermedia 1604
Knema laurina 1606
Knema malayana 1607
Knema missionis 1603
Knema wrayi 1601
Koompassia malaccensis 1316

Kopsia singaporensis 348
Korthalsia echinometra 1963
Korthalsia grandis 1964
Korthalsia polystachya 1967
Korthalsia scaphigera 1965
Korthalsia wallichiaefolia 1966
Kunstleria ridleyi 1317
Kurrimia paniculata 510
Kurrimia robusta 511
Kyllinga brevifolia 647
Kyllinga cylindrica 677
Kyllinga melanosperma 665
Kyllinga monocephala 663
Labisia pothoina 1635
Lantana indica 2432
Lasia aculeata 396
Lasianthus appressus 2138
Lasianthus attenuatus 2139
Lasianthus chryseus 2153
Lasianthus constricta 2140
Lasianthus cyanocarpus 2141
Lasianthus densifolius 2142
Lasianthus ellipticus 2143
Lasianthus griffithii 2145
Lasianthus maingayi 2146
Lasianthus ridleyi 2149
Lasianthus scabridus 2150
Lasianthus singaporensis 2149
Lasianthus stipularis 2152
Lasianthus tomentosus 2153
Lecananthus erubescens 2154
Lecanorchis malaccensis 1863
Leea angulata 1244
Leea robusta 1243
Leea rubra 1246
Leea sambucina 1245
Leersia hexandra 1064
Lemna paucicostata 1357
Lemna polyrhiza 1359
Lemna tenera 1358
Leonurus sibiricus 1185
Lepionurus sylvestris 1730
Lepironia mucronata 706
Leptaspis urceolata 1065
Leptochloa chinensis 1066
Lettsomia ridleyi 605
Leucas lavendulifolia 1186
Leucas zeylanica 1187
Leuconotis griffithii 349
Leuconotis maingayi 350
Leucopogon malayanus 819
Leucostegia parvula 66
Licuala ferruginea 1968
Licuala spinosa 1969
Licuala triphylla 1970
Limacia velutina 1511
Limnanthemum indicum 986
Limnophila laxa 2298
Limnophila villosa 2300
Lindera lucida 1213
Lindsaya borneensis 80
Lindsaya nitens 81
Lindsaya orbiculata 87
Lindsaya parallelogramma 89
Lindsaya scandens 83
Linociera pauciflora 1718
Linostoma pauciflorum 2384
Liparis elegans 1864
Liparis ferruginea 1865
Liparis gibbosa 1866
Liparis tricallosa 1867
Lipocarpha argentea 707
Lipocarpha microcephala 708
Lippia nodiflora 2434
Litsea cordata 1216
Litsea ferruginea 1221
Litsea firma 1222
Litsea grandis 1224
Litsea griffithii 1220
Litsea lancifolia 1226
Litsea machilifolia 1227
Litsea megacarpa 1217
Litsea myristicaefolia 1228
Litsea perakensis 1218
Litsea petiolata 1219
Litsea ridleyi 1229
Litsea robusta 1230
Litsea sarawacensis 1225
Litsea singapurensis 1214
Litsea umbellata 1231
Lomariopsis cochinchinensis 93
Longetia malayana 849
Lophatherum gracile 1068
Lophopetalum fimbriatum 519
Lophopetalum littoralis 515
Lucaena glauca 1318
Lucinaea membranacea 2155
Lucinaea morinda 2156

Lucuma maingayi 2283
Lucuma malaccensis 2285
Ludwigia prostrata 1727
Lumnitzera littorea 537
Lumnitzera racemosa 538
Lycopodium cernuum 94
Lycopodium laxum 69
Lycopodium nummulariifolium 70
Lycopodium phlegmaria 71
Lycopodium squarrosum 72
Lygodium dichotomum 95
Lygodium flexuosum 96
Lygodium scandens 100
Maba buxifolia 795
Maba venosa 803
Macaranga cornuta 920
Macaranga gigantea 916
Macaranga griffithiana 917
Macaranga hosei 919
Macaranga hypoleuca 921
Macaranga javanica 918
Macaranga maingayi 922
Macaranga populifolia 915
Macaranga puncticulata 914
Macaranga recurvata 924
Macaranga trichocarpa 925
Macaranga triloba 926
Macodes petola 1869
Macrosolen cochinchinensis 1389
Macrosolen papillosus 1390
Macrosolen retusus 1391
Madhuca kingiana 2265
Madhuca malaccensis 2269
Madhuca sericea 2270
Maesa ramentacea 1636
Magnolia maingayi 1400
Malaxis latifolia 1870
Malaxis micrantha 1871
Mallotus paniculatus 928
Mangifera caesia 253
Mangifera foetida 254
Mangifera lagenifera 256
Mangifera odorata 258
Mangifera sclerophylla 255
Manihot utilissima 930
Mapania humilis 710
Mapania longa 711
Mapania palustris 715
Mapania triquetra 710
Mapania valida 712
Mapania wallichii 717
Mariscus albescens 662
Mariscus cyperinus 651
Mariscus dregeanus 656
Mariscus microcephalus 648
Mariscus sieberianus 652
Marumia nemorosa 1430
Marumia rhodocarpa 1429
Mastixia maingayi 633
Matthaea sancta 1517
Mazus rugosus 2310
Medinilla crassinervia 1432
Medinilla hasseltii 1431
Medinilla maingayi 1460
Melaleuca leucadendron 1689
Melanochyla auriculata 259
Melanochyla kunstleri 261
Melanochyla sp. 259
Melanorrhoea wallichii 252
Melanorrhoea woodsiana 252
Melastoma malabathricum 1433
Meliosma elliptica 2241
Meliosma lanceolata 2239
Meliosma ridleyi 2240
Melochia corchorifolia 2343
Melodinus micranthus 351
Melodorum cylindricum 322
Melodorum elegans 302
Melodorum fulgens 284
Melodorum latifolium var. *ovoidea* 286
Melodorum manubriatum 287
Melodorum pisocarpum 302
Melodorum prismaticum 322
Memecylon amplexicaule 1435
Memecylon cantleyi 1437
Memecylon coeruleum 1436
Memecylon edule 1440a
Memecylon garcinioides 1444
Memecylon heteropleurum 1441
Memecylon laevigatum 1448
Memecylon laxiflorum 1440b
Memecylon myrsinoides 1448
Memecylon oleifolium 1451
Memecylon ovatum 1440
Memecylon pubescens 1455
Merremia caespitosa 628
Merremia convolvulacea 627
Merremia tridentata 629

Merremia umbellata 630
Mezoneuron sumatranum 1268
Mezzettia leptopoda 300
Microcarpa curtisii ?
Microcarpaea muscosa 2311
Micrococca mercurialis 933
Microdesmis caseariifolia 934
Microsaccus ampullaceus 1873
Microsaccus brevifolius 1874
Microsaccus javensis 1875
Mikania scandens 575
Miliusa longipes 301
Millettia atropurpurea 1319
Mimosa invisa 1323
Mimosa pudica 1325
Mimosa sepiaria 1322
Mischocarpus sumatranus 2253
Mischocarpus sundaicus 2254
Mollugo pentaphylla 227
Monochoria hastaefolia 2045
Monochoria vaginalis 2046
Monogramme dareicarpus 107
Monogramme trichoidea 108
Morinda citrifolia 2157
Morinda ridleyi 2158
Morinda rigida 2159
Morinda umbellata 2160
Muntingia calabura 817
Mussaenda glabra 2161
Mussaenda mutabilis 2162
Mussaendopsis beccariana 2163
Myrica farquhariana 1581
Myristica cinnamomea 1609
Myristica crassa 1610
Myristica elliptica 1611
Myristica maingayi 1614
Myristica maxima 1615
Myrmecodia tuberosa 2166
Myrsine avenis 1637
Myrsine porteriana 1637
Myrsine umbellulata 1637
Najas graminea 1696
Najas kingii 1695
Nauclea junghuhnii 2166
Nauclea subdita 2167
Neesia altissima 465
Nenga wendlandiana 1972
Neonauclea purpurascens 2168
Nepenthes ampullaria 1697
Nepenthes gracilis 1698
Nepenthes rafflesiana 1700
Nepenthes trichocarpa 1701
Nephelaphyllum pulchrum 1876
Nephelium eriopetalum 2255
Nephelium lappaceum 2256
Nephelium mutabile 2258
Nephelium rubescens 2257
Nephrolepis acutifolia 110
Nephrolepis biserrata 111
Nephrolepis hirsutula 113
Nephrolepis radicans 114
Neptunia oleracea 1327
Nervilia punctata 1877
Neuwiedia curtisii 1880
Neuwiedia griffithii 1878
Neuwiedia lindleyi 1879
Norrisia malaccensis 1376
Nothaphoebe umbelliflora 1234
Nypa fruticans 1973
Oberonia anceps 1881
Oberonia bertoldii 1882
Oberonia ciliolata 1883
Oberonia dissitiflora 1884
Oberonia miniata 1887
Ochanostachys amentacea 1711
Ochrosia borbonica 352
Ochthocharis borneensis 1456
Ochthocharis javanica 1457
Ochthocharis paniculata 1458
Ocimum americanum 1188
Ocimum basilicum 1189
Ocimum canum 1188
Ocimum sanctum 1190
Oldenlandia corymbosa 2121
Oldenlandia dichotoma 2122
Oldenlandia diffusa 2123
Oldenlandia paniculata 2117
Olea brachiata 1722
Oncosperma horridum 1974
Oncosperma tigillarium 1975
Ophioglossum pedunculosum 115/117
Ophioglossum pendulum 116
Ophiorrhiza singaporensis 2171
Ormosia macrodisca 1331
Ormosia microsperma 1332
Ormosia parvifolia 1330
Orophea hastata 303
Osmelia maingayi 980

Ostodes macrophylla 896
Oxalis barrelieri 1930
Oxalis corniculata 1931
Oxalis corymbosa 1932
Oxymitra glauca 292
Oxymitra latifolia 293
Pachycentria tuberculata 1459
Padebruggea maingayi 1321
Paederia foetida 2176
Paederia verticillata 2177
Pajanella longifolia 458
Palaquium bancanum 2277
Palaquium gutta 2271
Palaquium hexandrum 2272
Palaquium microphyllum 2273
Palaquium obovatum 2274
Palaquium oxleyanum 2275
Palaquium ridleyi 2276
Palaquium xanthochymum 2278
Pandanus atrocarpus 1993
Pandanus aurantiacus 1992
Pandanus corneri 1999
Pandanus houllettei 1994
Pandanus militaris 2001
Pandanus ornatus 1995
Pandanus parvus 1997
Pandanus tectorius 1996
Pandanus tetrodon 2000
Panicum auritum 1074
Panicum caesium 1076
Panicum ovalifolium 1075
Panicum repens 1078
Panicum sarmentosum 1079
Parameria glandulifera 353
Parameria polyneura 354
Paramignya griffithii 2237
Paramignya longispina 2236
Parartocarpus triandrus 1579
Parastemon urophyllus 533
Parinarium asperulum 529
Parinarium corymbosum 532
Parinarium costatum 534
Parinarium oblongifolium 535
Parishia paucijuga 264
Parishia pubescens 262
Parkia speciosa 1334
Parsonsia spiralis 353
Paspalum commersonii 1084
Paspalum conjugatum 1080
Paspalum distichum 1085
Paspalum longifolium 1082
Paspalum orbiculare 1083
Passiflora foetida 2003
Passiflora laurifolia 2004
Passiflora quadrangularis 2005
Passiflora suberosa 2005
Pavetta indica 2178
Payena havilandii 2280
Payena lucida 2278
Payena maingayi 2279
Payena sessilis 2265
Peliosanthes violacea 1368
Peliosanthes viridis 1368
Pellacalyx axillaris 2071
Pellacalyx saccardianus 2072
Pellionia daveauana 2414
Peltophorum ferrugineum 1335
Pemphis acidula 1397
Pentace triptera 2392
Pentaphragma ridleyi 2008
Pentaphragma scortechinii 2008
Peperomia pellucida 2011
Peristrophe acuminata 206
Peristrophe tinctoria 207
Peronema canescens 2433
Perotis latifolia 1088
Petunga conifera 2130
Phaeanthus nutans 305
Philydrum lanuginosum 2009
Phoebe declinata 1235
Phoebe grandis 1236
Phoebe opaca 1236
Photinopteris speciosa 9
Phyllanthus niruri 936
Phyllanthus urinaria 939
Physalis minima 2327
Physostelma wallichii 434
Phytocrene bracteata 1172
Pilea muscosa 2415
Pimeleodendron griffithianum 940
Pinanga disticha 1978
Pinanga limosa 1979
Pinanga malaiana 1980
Pinanga simplicifrons 1982
Pinanga singaporensis 1981
Pinanga subruminata 1983
Piper caninum 2012
Piper chaba 2013

Piper flavimarginatum 2014
Piper lanatum 2015
Piper maingayi 2016
Piper miniatum 2018
Piper muricatum 2019
Piper pachyphyllum 2020
Piper pedicellosum 2021
Piper porphyrophyllum 2022
Piper protractum 2023
Piper ribesioides 2024
Piper sarmentosum 2025
Pipturus mollisimus 2413
Pistia stratiotes 397
Pithecellobium affine 1262
Pithecellobium angulatum 1259
Pithecellobium clypearia 1259
Pithecellobium confertum 1257
Pithecellobium contortum 1360
Pithecellobium ellipticum 1261
Pithecellobium jiringa 1263
Pithecellobium microcarpum 1264
Pittosporum ferrugineum 2026
Pityrogramma calomelanos 121
Plagiostachys lateralis 2500
Planchonella obovata 2284
Plantago asiatica 2027
Platycerium coronarium 122
Platycerium ridleyi 123
Plectocomia griffithii 1984
Plectocomiopsis annulatus 1971
Plectocomiopsis scortechinii 1971
Pleocnemia olivacea 125
Plethiandra sessiliflora 1461
Plocoglottis gigantea 1892
Plocoglottis javanica 1893
Plocoglottis lowii 1894
Pluchea indica 577
Plumbago zeylanica 2028
Podochilus microphyllus 1895
Pogonanthera pulverulenta 1462
Polyalthia angustissima 306
Polyalthia beccarii 308
Polyalthia cauliflora 308
Polyalthia desmantha 308
Polyalthia hypoleuca 312
Polyalthia lateriflora 314
Polyalthia macropoda 315
Polyalthia scortechinii 316
Polyalthia sumatrana 318
Polygala brachystachya 2029
Polygonum barbatum 2041
Polyosma conocarpa 2287
Polyosma flavo-virens 2286
Polyosma ridleyi 2285
Polypodium grandidentata 163
Polypodium moultoni 35
Polypodium nigrescens 119
Polypodium phymatodes 120
Polypodium punctatum 106
Polypodium revolutum 79
Polypodium sinuosum 110
Polypodium verrucosum 60
Polystachya flavescens 1896
Pomatocalpa latifolium 1897
Pometia alnifolia 2260
Pongamia pinnata 1336
Popowia fusca 319
Popowia ramosissima 320
Popowia tomentosa 321
Portulaca oleracea 2047
Portulaca quadrifida 2049
Pothos latifolius 398
Pouzolzia indica 2419
Premna corymbosa 2435
Premna foetida 2436
Premna punctulata 2438
Premna ridleyi 2439
Premna trichostoma 2437
Prismatomeris tetranda 2182
Pseuderanthemum kingii 208
Pseudo-eugenia singaporensis 1638
Psilotum complanatum 130
Psychotria angulata 2183
Psychotria cantleyi 2184
Psychotria griffithii 2185
Psychotria helferiana 2186
Psychotria maingayi 2187
Psychotria malayana 2188
Psychotria obovata 2189
Psychotria ovoidea 2190
Psychotria penangensis 2191
Psychotria ridleyi 2192
Psychotria rostrata 2193
Psychotria sarmentosa 2194
Psychotria stipulacea 2188
Pteleocarpa malaccensis 474
Pteridium aquilinum 132
Pteris decussata 135

Pteris ensiformis 134
Pteris tripartita 136
Pteris vittata 137
Pterisanthes coriacea 2470
Pternandra coerulescens 1463
Pternandra echinata 1464
Pternandra paniculata 1465
Pterococcus corniculatus 941
Pterospermum diversifolium 2345
Pterospermum javanicum 2346
Ptychopyxis caput-medusae 942
Ptychopyxis costata 943
Ptychoraphis singaporensis 1985
Pycreus nitens 669
Pycreus polystachyus 668
Pygeum parviflorum 2076
Pygeum persimile 2076
Pygeum polystachyum 2078
Pyrenaria acuminata 2376
Quercus argentata 973
Quercus bennettii 961
Quercus cantleyana 962
Quercus conocarpa 963
Quercus cyclophora 964
Quercus encleisacarpa 966
Quercus ewyckii 967
Quercus lamponga 971
Quercus lucida 970
Quercus spicata 965
Quercus wallichiana 972
Quisqualis indica 538
Radermachera lobbii 459
Randia anisophylla 2179
Randia auriculata 2080
Randia clarkei 2175
Randia densiflora 2081
Randia fragrantissima 2172
Randia longiflora 2173
Randia macrophylla 2197
Randia penangiana 2174
Raphidophora korthalsii 399
Raphidophora lobbii 400
Raphidophora maingayi 401
Raphidophora minor 402
Remirea maritima 666
Renanthera elongata 1899
Renanthera histrionica 1900
Rhizophora conjugata 2073
Rhizophora mucronata 2074
Rhodamnia trinervia 1690
Rhododendron longiflorum 820
Rhodomyrtus tomentosus 1691
Rhynchospora aurea 718
Rhynchospora glauca 721
Rhynchospora malasica 719
Rhynchospora wallichiana 720
Rhyncostylis gigantea 1901
Ricinus communis 944
Rivina humilis 2010
Robiquetia spathulata 1902
Roucheria griffithiana 1369
Rourea acuminata 602
Rourea concolor 601
Rourea fulgens 600
Rourea pulchella 602
Rourea rugosa 603
Rourea similis 601
Rubus angulosus 2080a
Rubus moluccanus 2080b
Ruellia repens 209
Ryparosa hullettii 982
Ryparosa wallichii 983
Saccharum arundinaceum 1092
Sacciolepis angusta 1094
Sacciolepis myosuroides 1095
Sacciolepis turgida 1094
Salacia flavescens 526
Salacia grandiflora 524
Salacia korthalsiana 525
Salacia latifolia 522
Salacia prinoides 522
Salacia rubra 523
Salacia viminea 527
Salomonia cantoniensis 2031
Samadera indica 2319
Sandoricum emarginatum 1498
Sandoricum koetjape 1499
Santiria apiculata 488
Santiria laevigata 491
Santiria rubiginosa 492
Sapium discolor 945
Saprosma glomerulata 2198
Sarcanthus halophilus 1783
Sarcochilus caligaris 1898
Sarcolobus globosus 444
Sarcostoma javanica 1903
Saurauia tristyla 218
Sauropus albicans 947

Scaevola frutescens 996
Scaphium affine 2348
Scaphium linearicarpum 2347
Schefflera cephalotes 412
Schefflera hullettii 414
Schefflera lanceolata 415
Schefflera micrantha 413
Schefflera ridleyi 417
Schefflera subulata 416
Schismatoglottis calyptrata 404
Schismatoglottis wallichii 405
Schizachryium semiberbe 1096
Schizaea dichotoma 143
Schizaea digitata 144
Schizoloma divergens 82
Schizoloma ensifolium 84
Schizoloma heterophyllum 85
Schizoloma walkerae 92
Schizostachyum chilianthum 1097
Schizostachyum latifolium 1098
Schizostachyum tenue 1097
Schizostchyum zolleringi 1099
Schoenorchis micrantha 1904
Schoenorchis secundiflora 1905
Schoenus calostachyus 722
Sciaphila affinis 2396
Scindapsus hederaceus 406
Scindapsus pictus 407
Scirpodendron costatum 723
Scirpus grossus 724
Scirpus mucronatus 725
Scleria bancana 729
Scleria biflora 727
Scleria caricina 728
Scleria corymbosa 730
Scleria hebecarpa 731
Scleria levis 732
Scleria multifoliata 734
Scleria oryzoides 733
Scleria sumatrensis 736
Scleria zeylanica 735
Scleropyrum ridleyi 2245
Scolopia rhinanthera 984
Scoparia dulcis 2312
Scorodocarpus borneensis 1713
Scurrula ferruginea 1392
Scyphiphora hydrophyllacea 2199
Sebastiania chamalaea 948
Selaginella atroviridis 147
Selaginella ciliaris 146
Selaginella mayeri 148
Selaginella roxburghii 149
Selaginella willdenowii 151
Selliguea heterocarpa 152
Serianthes grandiflora 1344
Sesamum indicum 2006
Sesuvium portulacastrum 228
Setaria rubiginosa 1102
Shorea bracteolata 774
Shorea curtisii 776
Shorea gibbosa 777
Shorea gratissima 778
Shorea leprosula 779
Shorea macroptera 780
Shorea ovalis 781
Shorea parvifolia 782
Shorea pauciflora 783
Shorea platycarpa 784
Sida carpinifolia 1409
Sida cordifolia 1410
Sida rhombifolia 1411
Sigesbeckia orientalis 79
Sindora intermedia 1346
Sindora wallichii 1346
Sloanea javanica 818
Sloetia elongata 1580
Smilax barbata 2321
Smilax calophylla 2322
Smilax leucophylla 2324
Smilax megacarpa 2325
Smilax myosotiflora 2326
Smythea pacifica 2055
Solanum ferox 2328
Solanum nigrum 2329
Solanum sarmentosum 2330
Solanum torvum 2331
Sonerila begoniaefolia 1467
Sonerila heterostemon 1466
Sonneratia acida 2333
Sonneratia alba 2332
Sonneratia griffithii 2332
Sparganophorus vaillantii 580
Spathodea campanulata 460
Spathodea nilotica 460
Spathoglottis plicata 1906
Spatholobus ferrugineus 1347
Spatholobus maingayi 1348
Spatholobus ridleyi 1349

Sphaeranthus africanus 581
Sphaerocaryum elegans 1104
Sphaerostephanos polycarpus 154
Sphaerostylis malaccense 932
Sphenodesme pentandra 2440
Spilanthes acmella 554
Sporobolus diander 1105
Sporobolus indicus 1105
Stachyphrynium griffithii 1418
Stachyphrynium parvum 1415
Stachytarpheta indica 2442
Stachytarpheta jamaicensis 2443
Stachytarpheta mutabilis 2444
Staurogyne griffithiana 210
Staurogyne setigera 212
Stemonurus capitatus 1174
Stemonurus scorpioides 1175
Stemonurus secundiflorus 1175
Stenochlaena palustris 156
Stephanotis maingayi 446
Sterculia bicolor 2349
Sterculia elongata 2352
Sterculia javanica 2351
Sterculia laevis 2350
Sterculia macrophylla 2353
Sterculia parviflora 2354
Sterculia rubiginosa 2355
Stereospermum chelonoides 461
Striga hirsuta 2314
Strombosia javanica 1715
Strombosia rotundifolia 1714
Strophanthes brevicaudatus 357
Strophanthes dichotomus 356
Strychnos malaccensis 1377
Strychnos ovalifolia 1378
Strychnos pubescens 1377
Strychnos ridleyi 1380
Styrax benzoin 2357
Styrax crotonoides 2358
Susum malayanum 1147
Swintonia schwenkii 265
Symplocos adenophylla 2359
Symplocos celastrifolia 2361
Symplocos fasciculata 2362
Symplocos odoratissima 2364
Symplocos pulverulenta 2364
Symplocos ridleyi 2363
Symplocos rigida 2360
Symplocos rubiginosa 2365
Synedrella nodiflora 582
Syngramma alismifolia 157
Tabernaemontana corymbosa 358
Tabernaemontana hirta 358
Tabernaemontana malaccensis 359
Tacca chantrieri 2366
Tacca cristata 2366
Taeniophyllum filiforme 1908
Taeniophyllum obtusum 1909
Taenitis blechnoides 158
Talauma lanigera 1401
Talauma singaporensis 1398
Tarenna adpressa 2200
Tarenna fragrans 2202
Tarenna mollis 2203
Tarenna ridleyi 2205
Tarenna stellulata 2206
Tarrietia simplicifolia 2341
Tectaria angulata 161
Tectaria barberi 162
Tectaria multicaudata 164
Tectaria singaporeana 166
Tephrosia subamoena 1353
Teratophyllum aculeatum 167
Teratophyllum ludens 168
Terminalia catappa 540
Terminalia phellocarpa 541
Terminalia subspathulata 542
Ternstroemia bancana 2377
Ternstroemia wallichiana 2379
Tetracera assa 747
Tetracera fagifolia 749
Tetracera lucida 748
Tetracera macrophylla 751
Tetracera sumatrana 749
Tetracera sylvestris 747
Tetramerista glabra 2368
Thelasis carinata 1910
Thelasis micrantha 1911
Thelasis triptera 1912
Thelypteris chlamydophora 102
Thelypteris motleyi 103
Themeda arguens 1108
Themeda villosa 1109
Thespesia populnea 1412
Thoracostachyum bancanum 738
Thottea dependens 420
Thottea grandiflora 421
Thrixspermum acuminatissimum 1913

Thrixspermum amplexicaule 1914
Thrixspermum arachnites 1916
Thrixspermum calceolus 1915
Thrixspermum ridleyanum 1917
Thrixspermum trichoglottis 1919
Thuarea sarmentosa 1110
Thunbergia alata 214
Thunbergia fragrans 216
Thunbergia grandiflora 217
Timonius finlaysonianus 2207
Timonius flavescens 2208
Timonius wallichianus 2209
Timonius wrayi 2210
Tinomiscium petiolare 1513
Tinospora crispa 1514
Torenia polygonoides 2296
Tournefortia wallichii 475
Trema angustifolia 2405
Trema orientalis 2407
Trema virgata 2406
Trevesia cheirantha 418
Trichomanes bimarginatum 176
Trichomanes christii 170
Trichomanes humile 171
Trichomanes javanicum 172
Trichomanes obscurum 176
Trichomanes pallidum 177
Trichomanes singaporeanum 178
Trichomanes sublimbatum 179
Trichosanthes celebica 640
Trichosanthes wallichiana 641
Trichosanthes wawraei 642
Tridax procumbens 583
Trigonachras acuta 2261
Trigoniastrum hypoleucum 2395
Trigonochlamys grandifolia 480
Trigonochlamys griffithii 4490
Trigonostemon longifolius 952
Triomma malaccensis 494
Tristania merguensis 1692
Tristania obovata 1693
Tristania sumatrana 1694
Tristellateia australasiae 1404
Triumfetta pseudo-cana 2393
Triumfetta rhomboidea 2394
Tropidia curculigoides 1923
Turnera trioniflora 2398
Turnera ulmifolia 2399
Turpinia latifolia 2335
Turpinia laxiflora 2335
Turraea breviflora 1501
Tylophora asthmatica 448
Tylophora squarrosa 449
Tylophora tenuis 450
Tylophora wallichii 449
Typhonium cuspidatum 408
Typhonium roxburghii 409
Uncaria attenuata 2212
Uncaria gambir 2215
Uncaria glabrata 2216
Uncaria jasminiflora 2213
Uncaria ovalifolia 2217
Uncaria pedicellata 2214
Uncaria pteropoda 2217
Uncaria roxburghiana 2218
Uncaria sclerophylla 2214
Uraria crinita 1353
Urceola brachysepala 360
Urceola lucida 361
Urceola maingayi 362
Urceola malaccensis 363
Urceola torulosa 364
Urena lobata 1413
Urophyllum glabrum 2221
Urophyllum griffithianum 2222
Urophyllum hirsutum 2223
Urophyllum macrophyllum 2224
Urophyllum streptopodium 2226
Urophyllum trifurcum 2227
Utricularia albina 1363
Utricularia bifida 1362
Utricularia exoleta 1364
Utricularia fluitans 1365
Utricularia griffithii 1366
Uvaria excelsa 277
Uvaria hirsuta 327
Uvaria lobbiana 329
Uvaria macrophylla 324
Uvaria purpurea 326
Uvaria ridleyi 328
Uvaria subrepanda 329
Vaccinium acuminatissimum 821
Vaccinium hasseltii 823
Vaccinium malaccense 822
Vandellia crustacea 2304
Vandellia elata 2305
Vandellia hirsuta 2309
Vandellia pedunculata 2301

Vanilla griffithii 1924
Vatica maingayi 785
Vatica ridleyana 786
Vatica wallichii 786
Ventilago malaccensis 2056
Vernonia arborea 584
Vernonia chinensis 586
Vernonia cinerea 585
Vernonia javanica 584
Viburnum sambucinum 506
Vigna retusa 1354
Viscum articulatum 1394
Viscum orientale 1395
Vitex coriacea 2445
Vitex negundo 2448
Vitex peralata 2446
Vitex pteropoda 2446
Vitex pubescens 2449
Vitex trifolia 2450
Vitex vestita 2451
Vitis cinnamomea 2455
Vitis elegans 2456
Vitis furcata 2466
Vitis glaberrima 2464
Vitis gracilis 2457
Vitis hastata 2463
Vitis lawsoni 2473
Vitis macrostachya 2467
Vitis mollissima 2460
Vitis novemfolia 2461
Vitis repens 2465
Vitis trifolia 2462
Vittaria elongata 181
Vrydagzynea albida 1925
Vrydagzynea lancifolia 1926
Vrydagzynea tristriata 1927
Wedelia biflora 587
Wikstroemia ridleyi 2385
Willughbeia coriacea 368
Willughbeia firma 368
Willughbeia flavescens 365
Willughbeia tenuiflora 371
Wolffia arhiza 1360
Wormia excelsa 741
Wormia pulchella 744
Wormia suffruticosa 746
Xanthium strumarium 589
Xanthophyllum affine 2306
Xanthophyllum curtisii 2313
Xanthophyllum discolor 2033
Xanthophyllum kingii 2034
Xanthophyllum obscurum 2037
Xanthophyllum palembanicum 2035
Xerospermum intermedium 2264
Xerospermum wallichii 2264
Ximenia americana 1716
Xylopia caudata 331
Xylopia dicarpa 335
Xylopia ferruginea 332a
Xylopia fusca 333
Xylopia malayana 335
Xylopia oxyantha 332b
Xylopia ridleyi 275
Xyris anceps 2474
Xyris indica 2475
Zalacca affinis 1986
Zalacca conferta 1961
Zanthoxylum hirtellum 2238
Zeuxine clandestina 1928
Zingiber griffithii 2502
Zingiber puberulum 2503
Zingiber zerumbet 2504
Ziziphus calophylla 2057
Ziziphus elegans 2058
Ziziphus horsfieldii 2059
Ziziphus oenoplia 2060
Zornia diphylla 1356
Zoysia pungens 1114